



# *Product Specifications Reference*

## *Lenovo® ThinkPad® S/E Series Notebooks*

*January 2014 - Version 449*



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# ThinkPad®



Lenovo® ThinkPad Twist S230u  
(Tent Mode)



Lenovo® ThinkPad Twist S230u  
(Tablet Mode)



Lenovo® ThinkPad Twist S230u  
(Notebook Mode)



Lenovo® ThinkPad Twist S230u  
(Stand Mode)



Lenovo® ThinkPad Twist S230u



Lenovo® ThinkPad Twist S230u

# ThinkPad® Twist S230u (20C4) - Ultrabook

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB <sup>2</sup> rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Top color	Blue-tooth	Battery cells	Preload	Ann date (mm/yy)
20C4-29U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	128G SSD	Intel 2230 <sup>28</sup>	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-28U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-27U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	06/13
20C4-26U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	06/13
20C4-25U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	Intel 2230	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-24U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-23U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	06/13
20C4-22U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	06/13

Positioning	<i>Convertible tablet ultrabook™; one spindle</i>											
Processor	<b>Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology <b>Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology											
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets											
Optical	None											
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable											
mSATA™ SSD	<i>Some:</i> 24GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot											
Widescreen display	<b>12.5"</b> (317.5mm) <b>HD (1366x768) TFT color</b> , smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, <b>rotate and swivel hinge</b> <i>Bottom buttons:</i> volume up / down and Windows buttons <i>Side buttons:</i> power and auto rotation buttons											
Multi-touch	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch											
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	<b>Intel HD Graphics 4000</b> in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (Mini DisplayPort) @60Hz; 1920x1200 (Mini HDMI) @60Hz											
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys											
TrackPoint®	TrackPoint pointing device											
Touchpad	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch											
Light sensor	Ambient light sensor											
ThinkLight™	None											
Dimensions <sup>3</sup>	<i>8-cell:</i> 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm											
Weight <sup>2</sup>	<i>8-cell:</i> from 3.50 lb (1.60kg)											
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium + PPS											
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication											
Extended Battery	None											
Battery - life <sup>10</sup>	<i>8-cell (42.4Whr):</i> up to 6.0 hr											
Chipset	<b>Mobile Intel HM77 Express Chipset</b>											
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)											
ExpressCard	None											
Smart Card Read	None											
Ports	Two USB 3.0, external monitor (mini-HDMI, mini-DisplayPort), ethernet (RJ-45)											
PCIe Mini Card	Two PCI Express Mini Card slots											
PCIe WLAN <sup>4</sup>	<i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, Wi-Fi + Bluetooth combo adapter, 2x2											
PCIe WWAN	None											
SIM card	None											
Modem	None											
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card											
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1											
Intel AMT	None											
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	None											
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available											

<b>Preloaded operating system<sup>20</sup></b> - Windows 8 Pro 64-bit
<b>Preloaded applications<sup>14</sup></b> (only some listed) <ul style="list-style-type: none"> <li>• Lenovo Support</li> <li>• Lenovo Companion</li> <li>• Lenovo Cloud Storage</li> <li>• Password Manager</li> <li>• Fingerprint Software (fingerprint models)</li> <li>• ThinkVantage System Update</li> <li>• Norton™ Internet Security (30 days of virus definitions)</li> <li>• Microsoft Office preloaded; purchase a product key to activate</li> <li>• Skype™</li> </ul>
Supports ThinkVantage® technologies
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information  
US model(s) announced June 4, 2013

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(TANR1-4) July 2013

# ThinkPad® Twist S230u (3347) - TopSeller (Ultrabook)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB <sup>5</sup> rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Top color	Blue-tooth	Bat-tery cells	Preload	Ann date (mm/yy)
3347-2YU	i3-3217U	4GB	12.5" HD Multi	720p	320G 7200	TP 11a/b/g/n <sup>28</sup>	24GB	None	Black	BT	8	Win8 Pro64	10/12
3347-2RU	i7-3517U	8GB	12.5" HD Multi	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	10/12
3347-2QU	i5-3317U	4GB	12.5" HD Multi	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	10/12
3347-2NU	i3-3217U	4GB	12.5" HD Multi	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	10/12
3347-2HU	i5-3317U	4GB	12.5" HD Multi	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	10/12
3347-2GU	i7-3517U	8GB	12.5" HD Multi	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	10/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 1-year limited warranty**

Positioning Processor	Convertible tablet ultrabook™; one spindle <b>Intel® Core™ i3-3217U processor (2 cores, 1.80GHz, 3MB Cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-3317U processor (2 cores, 1.70GHz, 3MB Cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology <b>Intel Core i7-3517U processor (2 cores, 1.90GHz, 4MB Cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.00GHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> - Windows® 8 Pro 64-bit  <b>Preloaded applications</b> <sup>14</sup> (only some listed) <ul style="list-style-type: none"><li>• Lenovo Support</li><li>• Lenovo Companion</li><li>• Lenovo Cloud Storage</li><li>• Password Manager</li><li>• Fingerprint Software (fingerprint models)</li><li>• ThinkVantage System Update</li><li>• Norton™ Internet Security (30 days of virus definitions)</li><li>• Microsoft Office preloaded; purchase a product key to activate</li><li>• Skype™</li></ul>
Memory	2GB, 4GB or 8GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets		
Optical	None		
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable		
mSATA™ SSD	<i>Some:</i> 24GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot		
Widescreen display	<b>12.5"</b> (317.5mm) <b>HD (1366x768) TFT color,</b> smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, <b>rotate and swivel hinge</b> <i>Bottom buttons:</i> volume up / down and Windows buttons <i>Side buttons:</i> power and auto rotation buttons		
Multi-touch	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	<b>Intel HD Graphics 4000</b> in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (Mini DisplayPort) @60Hz; 1920x1200 (Mini HDMI) @60Hz		
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint pointing device		
Touchpad	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch		
Light sensor	Ambient light sensor		
ThinkLight™	None		
Dimensions <sup>3</sup>	<i>8-cell:</i> 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm		
Weight <sup>2</sup>	<i>8-cell:</i> from 3.50 lb (1.60kg)		
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium + PPS		
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication		
Extended Battery	None		
Battery - life <sup>10</sup>	<i>8-cell (42.4Whr):</i> up to 6.0 hr		
Chipset	<b>Mobile Intel HM77 Express Chipset</b>		
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Smart Card Read	None		
Ports	Two USB 3.0, external monitor (mini-HDMI, mini-DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN <sup>4</sup>	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2		
PCIe WWAN	None		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card		
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available		

Supports ThinkVantage® technologies
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information  
US model(s) announced October 23, 2012

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(TANR1-1) October 2012



# ThinkPad® Twist S230u (3347) - TopSeller (Ultrabook) - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB <sup>5</sup> rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Top color	Blue-tooth	Bat-tery cells	Preload	Ann date (mm/yy)
3347-7EU	i5-3427U	4GB	12.5" HD Multi	720p	500G 7200	TP 11a/b/g/n <sup>28</sup>	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-7DU	i5-3427U	4GB	12.5" HD Multi	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-7CU	i5-3427U	4GB	12.5" HD Multi	720p	128G SSD	Intel 2230	None	None	Black	BT	8	Win8 Pro64	02/13
3347-7BU	i5-3427U	4GB	12.5" HD Multi	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	02/13
3347-78U	i5-3337U	4GB	12.5" HD Multi	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-77U	i7-3537U	8GB	12.5" HD Multi	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	02/13
3347-76U	i5-3337U	4GB	12.5" HD Multi	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	02/13
3347-6WU	i3-3227U	4GB	12.5" HD Multi	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-6VU	i5-3337U	4GB	12.5" HD Multi	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 64	02/13
3347-6UU	i5-3337U	4GB	12.5" HD Multi	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-6LU	i7-3537U	8GB	12.5" HD Multi	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-8NU	i3-3227U	4GB	12.5" HD Multi	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 64	07/13
3347-8MU	i3-3227U	4GB	12.5" HD Multi	720p	320G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 64	07/13
3347-8LU	i3-3227U	4GB	12.5" HD Multi	720p	320G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	07/13
Positioning Processor	Convertible tablet ultrabook™; one spindle Intel® Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-3337U processor (2 cores, 1.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3537U processor (2 cores, 2.00GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology									Preloaded operating system <sup>20</sup> - Some: Windows 8 64-bit - Some: Windows 8 Pro 64-bit  Preloaded applications <sup>14</sup> (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™			
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets												
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable Some: 24GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot												
mSATA™ SSD													
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color, smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, rotate and swivel hinge Bottom buttons: volume up / down and Windows buttons Side buttons: power and auto rotation buttons												
Multi-touch Camera	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4000 in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600 (Mini DisplayPort) @60Hz; 1920x1200 (Mini HDMI) @60Hz												
Keyboard TrackPoint®	6-row, 83-key, spill-resistant, multimedia Fn keys												
Touchpad	TrackPoint pointing device												
Light sensor	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch												
ThinkLight™	Ambient light sensor												
Dimensions <sup>3</sup>	8-cell: 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm												
Weight <sup>2</sup>	8-cell: from 3.50 lb (1.60kg)												
Case material	Display cover: Magnesium + Polyphenylene sulfide (PPS); Bottom: Magnesium + PPS												
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication												
Extended Battery	None												
Battery - life <sup>10</sup>	8-cell (42.4Whr): up to 6.0 hr												
Chipset	Mobile Intel HM77 Express Chipset												
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)												
ExpressCard	None												
Smart Card Read	None												
Ports	Two USB 3.0, external monitor (mini-HDMI, mini-DisplayPort), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN <sup>4</sup>	Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, Wi-Fi + Bluetooth combo adapter, 2x2												
PCIe WWAN	None												
SIM card	None									Supports ThinkVantage® technologies			
Modem	None												
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card									65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>			
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1												
Intel AMT	None												
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	None									For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet			
Limited warranty <sup>12</sup>	1-year - depot repair service / service upgrades <sup>22</sup> available												

See footnotes for more detailed information  
 US model(s) announced February 5, February 19, or July 16, 2013

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 (TANR1-3) August 2013

# ThinkPad® Twist S230u (3347) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB <sup>5</sup> rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Top color	Blue-tooth	Bat-tery cells	Preload	Ann date (mm/yy)
3347-2PU	i3-2365M	2GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n <sup>28</sup>	16GB	None	Black	BT	8	Win8 Pro64	10/12
3347-79U	i3-2375M	2GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n	16GB	None	Black	BT	8	Win8 Pro64	02/13
3347-84U	i3-2375M	2GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	16GB	None	Black	BT	8	Win8 Pro64	05/13
3347-83U	i3-2375M	2GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n	16GB	None	Black	BT	8	Win8 64	05/13

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 1-year limited warranty**

Positioning Processor	<i>Convertible tablet; one spindle</i> <b>Intel® Core™ i3-2365M processor (2 cores, 1.40GHz, 3MB Cache), Intel HD Graphics 3000,</b> DDR3 memory controller (up to 1333MHz), HT technology <b>Intel Core i3-2375M processor (2 cores, 1.50GHz, 3MB Cache), Intel HD Graphics 3000,</b> DDR3 memory controller (up to 1333MHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> - <i>Some:</i> Windows® 8 64-bit - <i>Some:</i> Windows 8 Pro 64-bit  <b>Preloaded applications</b> <sup>14</sup> (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™
Memory	2GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets		
Optical SATA disk	None Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™, removable, upgradable		
mSATA™ SSD	16GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot		
Widescreen display	<b>12.5"</b> (317.5mm) <b>HD (1366x768) TFT color</b> , smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, <b>rotate and swivel hinge</b> <i>Bottom buttons:</i> volume up / down and Windows buttons <i>Side buttons:</i> power and auto rotation buttons		
Multi-touch Camera	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	<b>Intel HD Graphics 3000</b> in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (Mini DisplayPort) @60Hz; 1920x1200 (Mini HDMI) @60Hz		
Keyboard TrackPoint®	6-row, 83-key, spill-resistant, multimedia Fn keys TrackPoint pointing device		
Touchpad	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch		
Light sensor	Ambient light sensor		
ThinkLight™	None		
Dimensions <sup>3</sup>	<i>8-cell:</i> 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm		
Weight <sup>2</sup>	<i>8-cell:</i> from 3.50 lb (1.60kg)		
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS); Integrated Li-Polymer 8-cell, HW Authentication		
Battery - type	None		
Extended Battery	None		
Battery - life <sup>10</sup>	<i>8-cell (42.4Whr):</i> up to 6.0 hr		
Chipset	<b>Mobile Intel HM77 Express Chipset</b>		
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Smart Card Read	None		
Ports	Two USB 3.0, external monitor (mini-HDMI, mini-DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN <sup>4</sup>	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2		
PCIe WWAN	None		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card		
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available		

Supports ThinkVantage® technologies
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information  
 US model(s) announced October 23, 2012; February 19 or May 21, 2013

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 (TANR1-2) June 2013

# ThinkPad® Twist S230u Accessories

Personal Systems Reference (PSREF)

## Memory

None

## Storage and removable storage

ThinkPad 16GB mSATA Solid State Cache Drive	0B47309	ann	12/11/12
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann	11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann	11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann	08/28/12

## ThinkPad Expansion

None

## Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
Ultralim Plus Wireless Keyboard and Mouse <sup>52</sup>	0A34032	ann	04/05/11
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

## Mouse

ThinkPad Bluetooth Laser Mouse	0A36407	ann	06/26/12
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
Lenovo Wireless Laser Mouse <sup>52</sup>	0A36188	ann	12/20/11

<sup>52</sup> Wireless via 2.4GHz technology using a micro-size USB receiver.

## Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

## Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann	01/07/10
Lenovo Mini Speakers M220	55Y2033	ann	01/07/10

## Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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## Power adapters

ThinkPad 65W AC Adapter <sup>45</sup>	40Y7696	ann	01/05/06
<sup>45</sup> Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05

More information at [www.lenovopowertips.com](http://www.lenovopowertips.com)

## Carrying Cases

Up to 13.3" widescreen models: ThinkPad Ultraportable Case	41U5062	ann	05/13/08
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Up to 15.6" widescreen models:

Lenovo Performance BackPack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08
Lenovo Sport Backpack - Red	0A33896	ann	02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann	02/28/12
Lenovo Sport Messenger - Red	0A33898	ann	02/28/12

More information at [www.lenovo.com/support/cases](http://www.lenovo.com/support/cases)

## Monitors

ThinkVision LT2323p Wide 23" (VGA, DP, DVI-D) <sup>69</sup>	3024HB1	ann	09/13/11
Lenovo LS2023 Wide 20" (VGA, DVI)	3778HB2	ann	08/02/11
Lenovo LS1922 Wide 18.5" (VGA)	2580AF1	ann	08/02/11
Lenovo LS2223 Wide 21.5" (VGA, DVI)	3783HB2	ann	08/02/11
Lenovo LS2323 Wide 23" (VGA, DVI)	3794HB1	ann	08/02/11

More information at [www.lenovo.com/support/monitors](http://www.lenovo.com/support/monitors)

## Monitor Accessories<sup>46</sup>

Lenovo Mini DisplayPort to VGA Adapter	0A36536	ann	05/17/11
Lenovo Mini DisplayPort to SL-DVI-D Adapter	0B47090	ann	06/12/12
Lenovo Mini DisplayPort to DisplayPort Cable	0B47091	ann	07/24/12
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10

<sup>46</sup> Compatible on selected Lenovo and ThinkVision monitors.

More information at [www.lenovo.com/support/monitoraccessories](http://www.lenovo.com/support/monitoraccessories)

For more information on accessories:

[www.lenovo.com/accessories](http://www.lenovo.com/accessories)

Purchase Lenovo accessories

[www.lenovo.com/support/accessories](http://www.lenovo.com/support/accessories)

Product specifications on Lenovo Support

[www.lenovo.com/accessoriesguide](http://www.lenovo.com/accessoriesguide)

Option Compatibility Matrix (OCM) and accessory brochures

[www.lenovoquickpick.com](http://www.lenovoquickpick.com)

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad Edge E431



Lenovo ThinkPad Edge E431



Lenovo ThinkPad Edge E431



Lenovo ThinkPad Edge E531



Lenovo ThinkPad Edge E531



Lenovo ThinkPad Edge E531  
with Numeric Keypad



Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
6277-DGU	i5-3320M	4GBx1	14.0" HD	720p	320G 5400	Intel 2230 + BT	None	Black	None	6	48	Prem 64	01/14
6277-DFU	i3-3120M	4GBx1	14.0" HD	720p	320G 7200	TP 11a/b/g/n + BT	None	Black	None	6	48	Prem 64	01/14

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles <b>Intel® Core™ i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	<b>Preloaded operating system</b> <sup>20</sup> - Genuine Windows® 7 Home Premium 64  <b>Preloaded applications</b> (only some listed) • Adobe® Reader® • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™	
M.2 SSD	None	
Widescreen display	<b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator	
Graphics	<b>Intel HD Graphics 3000</b> or <b>Intel HD Graphics 4000</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>	
Keyboard	6-row, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>	
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch	
ThinkLight™	None	
Dimensions <sup>3</sup>	14.0W" (WxDxH): 13.54" x 9.41" x 1.04-1.15"; 344mm x 239mm x 26.3-29.3mm	
Weight <sup>2</sup>	6-cell: from 4.70 lb (2.13kg)	
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type <sup>37</sup>	Lithium Ion 6-cell	
Battery - life <sup>10</sup>	6-cell (48Whr): up to 6.3 hr 6-cell (62Whr): up to 8.2 hr	
Chipset	<b>Mobile Intel HM77 Express Chipset</b>	
ExpressCard	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card	One PCI Express Half Mini Card slot	
PCIe WLAN <sup>4</sup>	<i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 1x1, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter	
M.2 Card	One M.2 Card slot for support of WWAN card or SSD	
M.2 WWAN	None	
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card	
Ethernet	Realtek® RTL8111F Gigabit Network Connection	
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	None	
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor	
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available	
		Supports ThinkVantage® technologies
		65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.2-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
		For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information  
US model(s) announced January 7, 2014

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(LIN1-5) January 2014

# ThinkPad® Edge E431 6277 (Intel) - TopSeller (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Battery cells	Battery /Wh	Preload	Ann date (mm/yy)
6277-58U	i3-3120M	4GBx1	14.0" HD	720p	320G 7200	Intel 2230 + BT	None	Black	None	6	48	Win7 Pro64	04/13
6277-59U	i3-3120M	4GBx1	14.0" HD	720p	320G 7200	Intel 2230 + BT	None	Black	None	6	48	Win8 Pro64	04/13
6277-5AU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	04/13
6277-5BU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-5CU	i7-3632QM	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	04/13
6277-5DU	i7-3632QM	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-5EU	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-5FU	i3-2348M	4GBx1	14.0" HD	720p	320G 5400	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	04/13
6277-5GU	i3-2348M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	04/13
6277-5HU	i5-3230M	4GBx1	14.0" HD	720p	128G SSD	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	04/13
6277-5JU	i5-3230M	4GBx1	14.0" HD	720p	128G SSD	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-5KU	i5-3230M	4+2GB	14.0" HD	720p	1TB 5400	Intel 2230 + BT	None	Black	Finger	6	48	Win8 64	04/13
6277-74U	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	04/13
6277-75U	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	24GB	Black	Finger	6	48	Win7 Pro64	04/13
6277-76U	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	24GB	Black	Finger	6	48	Win8 Pro64	04/13
6277-77U	i5-3230M	4+2GB	14.0" HD	720p	1TB 5400	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-78U	i5-3230M	4+2GB	14.0" HD	720p	1TB 5400	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	04/13
6277-CBU	i3-3130M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	08/13

Positioning Processor	<p><i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i>  <b>Intel® Core™ i3-2348M processor (2 cores, 2.30GHz, 3MB cache), Intel HD Graphics 3000</b>,  DDR3 memory controller (up to 1333MHz), HT technology  <b>Intel Core i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000</b>,  DDR3 memory controller (up to 1600MHz), HT technology  <b>Intel Core i3-3130M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000</b>,  DDR3 memory controller (up to 1600MHz), HT technology  <b>Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000</b>,  DDR3 memory controller (up to 1600MHz), HT technology  <b>Intel Core i7-3632QM processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4000</b>,  DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p>								<p><b>Preloaded operating system<sup>20</sup></b>  - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit  - Some: Windows 8 64-bit  - Some: Windows 8 Pro 64-bit</p> <p><b>Preloaded applications</b> (only some listed)  - <b>Windows 7 models</b>  • Access Connections™  • ThinkVantage Power Manager  • ThinkVantage Tools  • Lenovo SimpleTap  • Adobe® Reader®</p> <p>- <b>Windows 8 models</b>  • Lenovo Support  • Lenovo Companion  • Lenovo Cloud Storage</p> <p>- <b>All models</b>  • ThinkVantage System Update  • Norton™ Internet Security (30 days of virus definitions)  • Skype™  • Microsoft Office preloaded; purchase a product key to activate</p>				
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets												
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™												
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot												
Widescreen display	<b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio												
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator												
Graphics	<b>Intel HD Graphics 3000</b> or <b>Intel HD Graphics 4000</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz												
Keyboard	6-row, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>												
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch												
ThinkLight™	None												
Dimensions <sup>3</sup>	14.0W" (WxDxH): 13.54" x 9.41" x 1.04-1.15"; 344mm x 239mm x 26.3-29.3mm												
Weight <sup>2</sup>	6-cell: from 4.70 lb (2.13kg)												
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom												
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type <sup>37</sup>	Lithium Ion 6-cell												
Battery - life <sup>10</sup>	6-cell (48Whr): up to 6.3 hr 6-cell (62Whr): up to 8.2 hr												
Chipset	<b>Mobile Intel HM77 Express Chipset</b>												
ExpressCard	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)												
PCIe Mini Card	One PCI Express Half Mini Card slot												
PCIe WLAN <sup>4</sup>	Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter												
M.2 Card	One M.2 Card slot for support of WWAN card or SSD												
M.2 WWAN	None												
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole												
Security	None												
Security chip	None												
Fingerprint reader	Some: UPEK Fingerprint reader on palm rest, swipe sensor												
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available												

See footnotes for more detailed information  
US model(s) announced April 30, or August 20, 2013

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(LIN1-1) August 2013

# ThinkPad® Edge E431 6277 (Intel) - TopSeller (Windows 8) - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
6277-9QU	i7-3632QM	8GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	06/13
6277-9RU	i7-3632QM	8GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	06/13
6277-AUU	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	None	6	48	Win8 64	06/13
6277-AVU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win8 64	06/13
6277-AWU	i3-2348M	4GBx1	14.0" HD	720p	320G 5400	TP 11b/g/n + BT	None	Black	None	6	48	Win8 Pro64	06/13
6277-AXU	i3-2348M	2GBx1	14.0" HD	720p	320G 5400	TP 11b/g/n + BT	None	Black	None	6	48	Win8 Pro64	06/13
6277-AYU	i7-3632QM	8GBx1	14.0" HD	720p	128G SSD	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	06/13
6277-AZU	i7-3632QM	8GBx1	14.0" HD	720p	128G SSD	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	06/13
6277-B2U	i3-3110M	4GBx1	14.0" HD	720p	320G 5400	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	06/13
6277-B3U	i3-3110M	4GBx1	14.0" HD	720p	320G 5400	TP 11b/g/n + BT	None	Black	None	6	48	Win8 Pro64	06/13
6277-BTU	i3-3110M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-BUW	i3-3110M	2GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-BVU	i3-3110M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-BWU	i7-3632QM	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-BXU	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-BYU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-DEU	i3-3120M	4GBx1	14.0" HD	720p	320G 7200	TP 11a/b/g/n + BT	None	Black	None	6	48	Win8 64	01/14
Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> <b>Intel® Core™ i3-2348M processor (2 cores, 2.30GHz, 3MB cache), Intel HD Graphics 3000</b> , DDR3 memory controller (up to 1333MHz), HT technology <b>Intel Core i3-3110M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology <b>Intel Core i7-3632QM processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology									<b>Preloaded operating system<sup>20</sup></b> - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit  - <i>Some:</i> Windows 8 64-bit - <i>Some:</i> Windows 8 Pro 64-bit  <b>Preloaded applications</b> (only some listed) - <b>Windows 7 models</b> • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Lenovo SimpleTap • Adobe® Reader®  - <b>Windows 8 models</b> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage  - <b>All models</b> • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate			
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets												
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™												
M.2 SSD	None												
Widescreen display	<b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio												
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator												
Graphics	<b>Intel HD Graphics 3000</b> or <b>Intel HD Graphics 4000</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>												
Keyboard	6-row, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>												
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch												
ThinkLight™	None												
Dimensions <sup>3</sup>	14.0W" (WxDxH): 13.54" x 9.41" x 1.04-1.15"; 344mm x 239mm x 26.3-29.3mm												
Weight <sup>2</sup>	6-cell: from 4.70 lb (2.13kg)												
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom												
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type <sup>37</sup>	Lithium Ion 6-cell												
Battery - life <sup>10</sup>	6-cell (48Whr): up to 6.3 hr 6-cell (62Whr): up to 8.2 hr												
Chipset	<b>Mobile Intel HM77 Express Chipset</b>												
ExpressCard	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)												
PCIe Mini Card	One PCI Express Half Mini Card slot												
PCIe WLAN <sup>4</sup>	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + BT combo adapter <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 1x1, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter												
M.2 Card	One M.2 Card slot for support of WWAN card or SSD												
M.2 WWAN	None												
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	None												
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor												
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available												
										Supports ThinkVantage® technologies			
										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.2-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>			
										For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet			

See footnotes for more detailed information

US model(s) announced June 11, June 25, or July 16, 2013 or January 7, 2014

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# ThinkPad® Edge E431 6277 (Intel) - Optimus (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
6277-CCU	i5-3230M	4GBx1	14.0" HD	710M	720p	500G 7200	Intel 2230 + BT	None	Black	None	6	48	Win7 Pro64	08/13

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles <b>Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology			<b>Preloaded operating system</b> <sup>20</sup> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit - Some: Windows 8 Pro 64-bit  <b>Preloaded applications</b> (only some listed) - <b>Windows 7 models</b> <ul style="list-style-type: none"><li>• Access Connections™</li><li>• ThinkVantage Power Manager</li><li>• ThinkVantage Tools</li><li>• Lenovo SimpleTap</li><li>• Adobe® Reader®</li></ul> - <b>Windows 8 models</b> <ul style="list-style-type: none"><li>• Lenovo Support</li><li>• Lenovo Companion</li><li>• Lenovo Cloud Storage</li></ul> - <b>All models</b> <ul style="list-style-type: none"><li>• ThinkVantage System Update</li><li>• Norton™ Internet Security (30 days of virus definitions)</li><li>• Skype™</li><li>• Microsoft Office preloaded; purchase a product key to activate</li></ul>
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets			
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™			
M.2 SSD	None			
Widescreen display	<b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio			
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator			
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, <b>Intel HD Graphics 4000</b> in processor, and <b>NVIDIA GeForce® 710M</b> , PCI Express® x 8, <b>1GB</b> memory, DirectX® 11.1, NVIDIA PureVideo® HD technology, External monitor support via analog VGA DB-15 connector / digital HDMI connector Max external resolution: 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI) @60Hz			
Keyboard	6-row, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>			
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch			
ThinkLight™	None			
Dimensions <sup>3</sup>	14.0W" (WxDxH): 13.54" x 9.41" x 1.04-1.15"; 344mm x 239mm x 26.3-29.3mm			
Weight <sup>2</sup>	6-cell: from 4.70 lb (2.13kg)			
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom			
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic			
Battery - type <sup>37</sup>	Lithium Ion 6-cell			
Battery - life <sup>10</sup>	6-cell (48Whr): up to 6.2 hr 6-cell (62Whr): up to 8.0 hr			
Chipset	<b>Mobile Intel HM77 Express Chipset</b>			
ExpressCard	None			
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)			
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)			
PCIe Mini Card	One PCI Express Half Mini Card slot			
PCIe WLAN <sup>4</sup>	Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter			
M.2 Card	One M.2 Card slot for support of WWAN card or SSD			
M.2 WWAN	None			
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card			
Ethernet	Realtek® RTL8111F Gigabit Network Connection			
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	None			
Fingerprint reader	None			
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available			
Supports ThinkVantage® technologies				
90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.2-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>				
For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet				

See footnotes for more detailed information  
US model(s) announced August 20, 2013

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# ThinkPad® Edge E431 6886 (Intel) - TopSeller (Win 8) - MultiTouch

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Battery cells	Battery /Wh	Preload	Ann date (mm/yy)
6886-2WU	i3-3120M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	04/13
6886-2XU	i5-3230M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	04/13
6886-2YU	i7-3632QM	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	04/13
6886-3XU	i3-3120M	4GBx1	14.0" HD Touch	720p	320G 7200	Intel 2230 + BT	None	black	None	6	48	Win8 Pro64	04/13
6886-44U	i3-2348M	4GBx1	14.0" HD Touch	720p	320G 5400	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	06/13
6886-45U	i3-2348M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	06/13
6886-46U	i5-3230M	4GBx1	14.0" HD Touch	720p	128G SSD	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	06/13
6886-47U	i7-3632QM	8GBx1	14.0" HD Touch	720p	128G SSD	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	06/13
6886-48U	i7-3632QM	8GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	06/13
6886-4HU	i3-3110M	4GBx1	14.0" HD Touch	720p	320G 5400	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	08/13
6886-4JU	i3-3110M	4GBx1	14.0" HD Touch	720p	320G 5400	Intel 2230 + BT	None	black	None	6	48	Win8 Pro64	08/13
6886-4KU	i3-3110M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	08/13
6886-4LU	i3-3110M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	None	6	48	Win8 Pro64	08/13
6886-4MU	i3-3120M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 64	10/13
6886-4NU	i5-3230M	4GBx1	14.0" HD Touch	720p	128G SSD	Intel 2230 + BT	None	black	Finger	6	48	Win8 64	10/13
6886-4PU	i7-3632QM	8GBx1	14.0" HD Touch	720p	128G SSD	Intel 2230 + BT	None	black	Finger	6	48	Win8 64	10/13

Positioning Processor	<p><i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i>  <b>Intel® Core™ i3-2348M processor (2 cores, 2.30GHz, 3MB cache), Intel HD Graphics 3000</b>,            DDR3 memory controller (up to 1333MHz), HT technology  <b>Intel Core i3-3110M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4000</b>,            DDR3 memory controller (up to 1600MHz), HT technology  <b>Intel Core i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000</b>,            DDR3 memory controller (up to 1600MHz), HT technology  <b>Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000</b>,            DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology  <b>Intel Core i7-3632QM processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4000</b>,            DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p>								<p><b>Preloaded operating system<sup>20</sup></b>            - Some: Windows 8 64-bit            - Some: Windows 8 Pro 64-bit</p> <p><b>Preloaded applications<sup>14</sup></b> (only some listed)            • Lenovo Support            • Lenovo Companion            • Lenovo Cloud Storage            • Password Manager            • Fingerprint Software (fingerprint models)            • ThinkVantage System Update            • Norton™ Internet Security (30 days of virus definitions)            • Microsoft Office preloaded; purchase a product key to activate            • Skype™</p>				
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets												
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™												
M.2 SSD	None												
Widescreen display	<b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, 10-point touch screen												
Camera	LED backlight, 180 nits, 16:9 aspect ratio, 500:1 contrast ratio HD720p resolution, face track, low light sensitive, fixed focus, LED indicator												
Graphics	<b>Intel HD Graphics 3000</b> or <b>Intel HD Graphics 4000</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>												
Keyboard	6-row, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>												
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch												
ThinkLight™	None												
Dimensions <sup>3</sup>	14.0W" (WxDxH): 13.54" x 9.41" x 1.17-1.29"; 344mm x 239mm x 29.7-32.7mm												
Weight <sup>2</sup>	6-cell: from 5.36 lb (2.43kg)												
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom												
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type <sup>37</sup>	Lithium Ion 6-cell												
Battery - life <sup>10</sup>	6-cell (48Whr): up to 6.0 hr 6-cell (62Whr): up to 7.6 hr												
Chipset	<b>Mobile Intel HM77 Express Chipset</b>												
ExpressCard	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)												
PCIe Mini Card	One PCI Express Half Mini Card slot												
PCIe WLAN <sup>4</sup>	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter												
M.2 Card	One M.2 Card slot for support of WWAN card or SSD												
M.2 WWAN	None												
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	None												
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor												
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available												

See footnotes for more detailed information

US model(s) announced April 30, June 11, August 20, or October 15, 2013

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Lenovo® ThinkPad Edge E440  
with MultiTouch Screen



Lenovo ThinkPad Edge E440  
with MultiTouch Screen



Lenovo ThinkPad Edge E440



Lenovo ThinkPad Edge E440



Lenovo ThinkPad Edge E440



Lenovo ThinkPad Edge E440

# ThinkPad® E440 20C5 (Intel) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN / SSD	SIM card	Top color	Finger print reader	Battery cells	Battery /Wh	Preload	Ann date (mm/yy)
20C5005KUS	i5-4200M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 64	01/14
20C5005AUS	i5-4200M	4GBx1	14.0" HD	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5004XUS	i3-4000M	4GBx1	14.0" HD	720p	320G 7200	Intel 7260 + BT	None	None	Black	None	6	48	Win7 Pro64	01/14
20C50059US	i5-4200M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C50051US	i5-4200M	4GBx1	14.0" HD	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C50058US	i3-4000M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005BUS	i7-4702MQ	8GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005JUS	i3-4000M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	None	6	48	Win8 64	01/14
20C50056US	i3-4000M	4GBx1	14.0" HD	720p	320G 7200	Intel 7260 + BT	None	None	Black	None	6	48	Win8 Pro64	01/14
20C50050US	i7-4702MQ	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C50055US	i7-4702MQ	8GBx1	14.0" HD	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C50057US	i7-4702MQ	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C50052US	i3-4000M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C50053US	i5-4200M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	16GB	None	Black	Finger	6	48	Win7 Pro64	01/14
20C5005HUS	i5-4200M	4+2GB	14.0" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 64	01/14
20C50054US	i5-4200M	4+2GB	14.0" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C5004YUS	i5-4200M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C5008CUS	i3-4000M	2GBx1	14.0" HD	720p	320G 7200	Intel 7260 + BT	None	None	Black	None	6	48	Win7 Pro64	01/14

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles <b>Intel® Core™ i3-4000M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4600</b> , DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-4200M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4600</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology <b>Intel Core i7-4702MQ processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4600</b> , DDR3L memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										<b>Preloaded operating system</b> <sup>20</sup> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit - Some: Windows 8 Pro 64-bit			
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<b>Preloaded applications</b> (only some listed, exclude No OS models) - <b>Windows 7 models</b> • Adobe® Reader®  - <b>Windows 8 models</b> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage  - <b>All models</b> • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate			
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot													
Widescreen display	<b>14.0"</b> (355mm) <b>HD (1366x768)</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio													
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator													
Graphics	<b>Intel HD Graphics 4600</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display													
Keyboard	6-row, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>													
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch													
ThinkLight™	None													
Dimensions <sup>3</sup>	14.0W" (WxDxH): 13.54" x 9.41" x 1.04-1.15"; 344 x 239mm x 26.3-29.3mm 6-cell: from 4.69 lb (2.13kg)													
Weight <sup>2</sup>														
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type <sup>37</sup>	Lithium Ion 6-cell													
Battery - life <sup>10</sup>	6-cell (48Whr): up to 6.3 hr 6-cell (62Whr): up to 8.2 hr													
Chipset	<b>Mobile Intel HM87 Express Chipset</b>													
ExpressCard	None													
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)													
PCIe Mini Card	One PCI Express Half Mini Card slot													
PCIe WLAN <sup>4</sup>	11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2													
M.2 Card	One M.2 Card slot for support of WWAN card or SSD													
M.2 WWAN	None													
SIM card	None													
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card													
Ethernet	Realtek® RTL8111GUS Gigabit Network Connection													
Audio support	High Definition (HD) Audio, Conexant CX20751-21Z codec / stereo speakers, Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	None													
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor													
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available													

See footnotes for more detailed information  
US model(s) announced January 21, 2014

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Supports ThinkVantage® technologies

65-watt AC adapter  
EPEAT™ Gold rating  
ENERGY STAR® 5.2-compliant  
RoHS-compliant  
International Warranty Service<sup>17</sup>  
24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup>

# ThinkPad® E440 20C5 (Intel) - TopSeller (MultiTouch)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>5</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN / SSD	SIM card	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20C5005GUS	i7-4702MQ	8GBx1	14.0" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005CUS	i3-4000M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005DUS	i5-4200M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005FUS	i5-4200M	4GBx1	14.0" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005EUS	i7-4702MQ	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5008AUS	i5-4200M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8.1 Pro64	01/14
20C50088US	i7-4702MQ	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8.1 Pro64	01/14
20C50089US	i7-4702MQ	8GBx1	14.0" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8.1 Pro64	01/14
20C5008BUS	i5-4200M	4GBx1	14.0" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8.1 Pro64	01/14
20C50087US	i3-4000M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8.1 Pro64	01/14

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles <b>Intel® Core™ i3-4000M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4600</b> , DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-4200M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4600</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology <b>Intel Core i7-4702MQ processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4600</b> , DDR3L memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> - Some: Windows 8 Pro 64-bit - Some: Windows 8.1 Pro 64-bit  <b>Preloaded applications</b> (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™		
M.2 SSD	None		
Widescreen display	<b>14.0"</b> (355mm) <b>HD (1366x768)</b> , anti-glare, <b>10-point touch screen</b> LED backlight, 180 nits, 16:9 aspect ratio		
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator		
Graphics	<b>Intel HD Graphics 4600</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>		
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch		
ThinkLight™	None		
Dimensions <sup>3</sup>	14.0W" (WxDxH): 13.54" x 9.41" x 1.17-1.27"; 344 x 239mm x 29.7-32.3mm <i>6-cell:</i> from 5.36 lb (2.43kg)		
Weight <sup>2</sup>	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom		
Case color	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Case material	Lithium Ion 6-cell		
Battery - type <sup>37</sup>	<i>6-cell (48Whr):</i> up to 6.3 hr		
Battery - life <sup>10</sup>	<i>6-cell (62Whr):</i> up to 8.2 hr		
Chipset	<b>Mobile Intel HM87 Express Chipset</b>		
ExpressCard	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card	One PCI Express Half Mini Card slot		
PCIe WLAN <sup>4</sup>	11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2		
M.2 Card	One M.2 Card slot for support of WWAN card or SSD		
M.2 WWAN	None		
SIM card	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card		
Ethernet	Realtek® RTL8111GUS Gigabit Network Connection		
Audio support	High Definition (HD) Audio, Conexant CX20751-21Z codec / stereo speakers, Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	None		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor		
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available		

Supports ThinkVantage® technologies

65-watt AC adapter  
EPEAT™ Gold rating  
ENERGY STAR® 5.2-compliant  
RoHS-compliant  
International Warranty Service<sup>17</sup>  
24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup>

See footnotes for more detailed information  
US model(s) announced January 21, 2014

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# ThinkPad® Edge E531 6885 (Intel) - TopSeller (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Numeric Keypad	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
6885-28U	i7-3632QM	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-2BU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-5DU	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-5TU	i3-3120M	4GBx1	15.6" HD	720p	320G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	04/13
6885-5UU	i3-3120M	4GBx1	15.6" HD	720p	320G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win8 Pro64	04/13
6885-5VU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-5WU	i7-3632QM	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-5ZU	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-62U	i5-3230M	4GBx1	15.6" HD	720p	128G SSD	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-63U	i5-3230M	4GBx1	15.6" HD	720p	128G SSD	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-64U	i5-3230M	4+2GB	15.6" HD	720p	1TB 5400	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 64	04/13
6885-65U	i5-3230M	4+2GB	15.6" HD	720p	1TB 5400	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-66U	i5-3230M	4+2GB	15.6" HD	720p	1TB 5400	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-84U	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	24GB	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-88U	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	24GB	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-9ZU	i7-3632QM	8GBx1	15.6" FHD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	06/13
6885-A2U	i7-3632QM	8GBx1	15.6" FHD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	06/13
6885-A3U	i7-3632QM	8GBx1	15.6" FHD	720p	128G SSD	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	06/13
6885-A4U	i7-3632QM	8GBx1	15.6" FHD	720p	128G SSD	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	06/13
6885-BGU	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win8 64	06/13
6885-BHU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 64	06/13

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles <b>Intel® Core™ i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology <b>Intel Core i7-3632QM processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										<b>Preloaded operating system<sup>20</sup></b> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit - Some: Windows 8 Pro 64-bit			
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<b>Preloaded applications</b> (only some listed) - <b>Windows 7 models</b> • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Lenovo Simple Tap • Adobe® Reader® - <b>Windows 8 models</b> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - <b>All models</b> • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate			
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™													
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot													
Widescreen display	Some: <b>15.6"</b> (396mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: <b>15.6"</b> (396mm) <b>FHD (1920x1080) color</b> , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio													
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator													
Graphics	<b>Intel HD Graphics 4000</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys, numeric keypad TrackPoint pointing device, Internet Scroll Bar <sup>13</sup> UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None													
Dimensions <sup>3</sup>	15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm 6-cell: from 5.4 lb (2.46kg)													
Weight <sup>2</sup>	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom													
Case color	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Case material	Lithium Ion 6-cell													
Battery - type <sup>37</sup>	6-cell (48Whr): up to 6.2 hr													
Battery - life <sup>10</sup>	6-cell (62Whr): up to 8.1 hr													
Chipset	<b>Mobile Intel HM77 Express Chipset</b>													
ExpressCard	None													
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)													
PCIe Mini Card	One PCI Express Half Mini Card slot													
PCIe WLAN <sup>4</sup>	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, Wi-Fi + Bluetooth combo adapter, 2x2													
M.2 Card	One M.2 Card slot for support of WWAN card or SSD													
M.2 WWAN	None													
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card													
Ethernet	Realtek® RTL8111F Gigabit Network Connection													
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	None													
Fingerprint reader	Some: UPEK Fingerprint reader on palm rest, swipe sensor													
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available													

See footnotes for more detailed information  
US model(s) announced April 30 or June 11, 2013

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Supports ThinkVantage® technologies

65-watt AC adapter  
EPEAT™ Gold rating  
ENERGY STAR® 5.2-compliant  
RoHS-compliant  
International Warranty Service<sup>17</sup>  
24 hour x 7 day<sup>18</sup> toll-free support  
during the warranty period<sup>12</sup>

For Lenovo<sup>22</sup> service upgrade  
options, please go to S-EDGE sheet

# ThinkPad® Edge E531 6885 (Intel) - TopSeller (Windows 8) - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Numeric Keypad	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
6885-5XU	i3-2348M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	04/13
6885-5YU	i3-2348M	2GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	04/13
6885-BJU	i3-2348M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win8 Pro64	06/13
6885-BKU	i3-2348M	2GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win8 Pro64	06/13
6885-BMU	i3-3110M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	06/13
6885-BNU	i3-3110M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win8 Pro64	06/13
6885-CCU	i3-3110M	2GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-CDU	i3-3110M	2GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-CEU	i3-3110M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-CFU	i7-3632QM	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-CGU	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-CHU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-D8U	i3-3110M	2GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win8 Pro64	08/13
6885-DAU	i3-3130M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	08/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> <b>Intel® Core™ i3-2348M processor (2 cores, 2.30GHz, 3MB cache), Intel HD Graphics 3000,</b> DDR3 memory controller (up to 1333MHz), HT technology <b>Intel Core i3-3110M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i3-3130M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology <b>Intel Core i7-3632QM processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology			<b>Preloaded operating system<sup>20</sup></b> - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit		
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets			<b>Preloaded applications</b> (only some listed) - <b>Windows 7 models</b> • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Lenovo SimpleTap • Adobe® Reader®		
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™			- <b>Windows 8 models</b> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage		
M.2 SSD	None			- <b>All models</b> • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate		
Widescreen display	<b>15.6"</b> (396mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio					
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator					
Graphics	<b>Intel HD Graphics 3000 or Intel HD Graphics 4000</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution:</i> 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz					
Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad					
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>					
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch					
ThinkLight™	None					
Dimensions <sup>3</sup>	15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm <i>6-cell:</i> from 5.4 lb (2.46kg)					
Weight <sup>2</sup>	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom					
Case color	Acrylonitrile-Butadiene-Styrene (ABS) plastic					
Case material	Lithium Ion 6-cell					
Battery - type <sup>37</sup>	<i>6-cell (48Whr):</i> up to 6.2 hr					
Battery - life <sup>10</sup>	<i>6-cell (62Whr):</i> up to 8.1 hr					
Chipset	<b>Mobile Intel HM77 Express Chipset</b>					
ExpressCard	None					
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)					
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)					
PCIe Mini Card	One PCI Express Half Mini Card slot					
PCIe WLAN <sup>4</sup>	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter					
M.2 Card	One M.2 Card slot for support of WWAN card or SSD					
M.2 WWAN	None					
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card					
Ethernet	Realtek® RTL8111F Gigabit Network Connection					
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	None					
Fingerprint reader	None					
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available					

Supports ThinkVantage® technologies
65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.2-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information

US model(s) announced April 30, June 11, June 25, July 16, or August 20, 2013

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# ThinkPad® Edge E531 6885 (Intel) - Optimus (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB <sup>3</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Numeric Keypad	Top color	Finger-print reader	Bat-tery cells /Wh	Bat-tery Preload	Ann date (mm/yy)
6885-D9U	i5-3230M	4GBx1	15.6" HD	710M	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6 48	Win7 Pro64	08/13

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles <b>Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit  <b>Preloaded applications</b> (only some listed) - <b>Windows 7 models</b> <ul style="list-style-type: none"><li>• Access Connections™</li><li>• ThinkVantage Power Manager</li><li>• ThinkVantage Tools</li><li>• Lenovo SimpleTap</li><li>• Adobe® Reader®</li></ul> - <b>Windows 8 models</b> <ul style="list-style-type: none"><li>• Lenovo Support</li><li>• Lenovo Companion</li><li>• Lenovo Cloud Storage</li></ul> - <b>All models</b> <ul style="list-style-type: none"><li>• ThinkVantage System Update</li><li>• Norton™ Internet Security (30 days of virus definitions)</li><li>• Skype™</li><li>• Microsoft Office preloaded; purchase a product key to activate</li></ul>
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
M.2 SSD	None		
Widescreen display	Some: <b>15.6"</b> (396mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: <b>15.6"</b> (396mm) <b>FHD (1920x1080) color</b> , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, <b>Intel HD Graphics 4000</b> in processor, and <b>NVIDIA GeForce® 710M</b> , PCI Express® x 8, <b>1GB</b> memory, DirectX® 11.1, or <b>NVIDIA GeForce® GT740M</b> , PCI Express® x 8, <b>2GB</b> memory, DirectX® 11.1, NVIDIA PureVideo® HD technology, External monitor support via analog VGA DB-15 connector / digital HDMI connector Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz		
Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad		
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>		
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch		
ThinkLight™	None		
Dimensions <sup>3</sup>	15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm 6-cell: from 5.5 lb (2.49kg)		
Weight <sup>2</sup>	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom		
Case color	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Case material	Lithium Ion 6-cell		
Battery - type <sup>37</sup>	6-cell (48Whr): up to 6.2 hr		
Battery - life <sup>10</sup>	6-cell (62Whr): up to 8.0 hr		
Chipset	<b>Mobile Intel HM77 Express Chipset</b>		
ExpressCard	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card	One PCI Express Mini Card slot		
PCIe WLAN <sup>4</sup>	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, Wi-Fi + Bluetooth combo adapter, 2x2		
M.2 Card	One M.2 Card slot for support of WWAN card or SSD		
M.2 WWAN	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	None		
Fingerprint reader	None		
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available		

Supports ThinkVantage® technologies
90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.2-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information  
US model(s) announced August 20, 2013

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Lenovo® ThinkPad Edge E540



Lenovo ThinkPad Edge E540



Lenovo ThinkPad Edge E540  
with Numeric Keypad



Lenovo ThinkPad Edge E540  
with Touch Screen



Lenovo ThinkPad Edge E540  
with Touch Screen



Lenovo ThinkPad Edge E540  
with Touch Screen



# ThinkPad® E540 20C6 (Intel) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	SIM card	Numeric Keypad	Top color	Finger-print reader	Bat-tery cells	Bat-tery Wh	Preload	Ann date (mm/yy)
20C60058US	i7-4702MQ	8GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6005DUS	i3-4000M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C60057US	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	16GB	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6005SUS	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 64	01/14
20C6005GUS	i7-4702MQ	8GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C60055US	i5-4200M	4GBx1	15.6" HD	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6005BUS	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C60053US	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C60054US	i3-4000M	4GBx1	15.6" HD	720p	320G 7200	Intel 7260 + BT	None	None	Numpad	Black	None	6	48	Win7 Pro64	01/14
20C6005RUS	i3-4000M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	None	6	48	Win7 Pro64	01/14
20C6005HUS	i7-4702MQ	8GBx1	15.6" HD	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6005AUS	i3-4000M	4GBx1	15.6" HD	720p	320G 7200	Intel 7260 + BT	None	None	Numpad	Black	None	6	48	Win8 Pro64	01/14
20C6005CUS	i7-4702MQ	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6005EUS	i5-4200M	4+2GB	15.6" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6005QUS	i5-4200M	4+2GB	15.6" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 64	01/14
20C60059US	i7-4702MQ	8GBx1	15.6" HD	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C60056US	i5-4200M	4+2GB	15.6" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C60052US	i7-4702MQ	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6005FUS	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	16GB	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles <b>Intel® Core™ i3-4000M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4600</b> , DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-4200M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4600</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology <b>Intel Core i7-4702MQ processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4600</b> , DDR3L memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										<b>Preloaded operating system<sup>20</sup></b> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit - Some: Windows 8 Pro 64-bit				
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<b>Preloaded applications</b> (only some listed) - <b>Windows 7 models</b> • Adobe® Reader®  - <b>Windows 8 models</b> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage  - <b>All models</b> • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate				
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™														
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot														
Widescreen display	<b>15.6"</b> (396mm) <b>HD (1366x768)</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio														
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator														
Graphics	<b>Intel HD Graphics 4600</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display														
Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad														
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>														
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch														
ThinkLight™	None														
Dimensions <sup>3</sup>	15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm														
Weight <sup>2</sup>	6-cell: from 5.4 lb (2.46kg)														
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom														
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type <sup>37</sup>	Lithium Ion 6-cell														
Battery - life <sup>10</sup>	6-cell (48Whr): up to 6.2 hr 6-cell (62Whr): up to 7.4 hr														
Chipset	<b>Mobile Intel HM87 Express Chipset</b>														
ExpressCard	None														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)														
PCIe Mini Card	One PCI Express Half Mini Card slot														
PCIe WLAN <sup>4</sup>	11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2														
M.2 Card	One M.2 Card slot for support of WWAN card or SSD														
M.2 WWAN	None														
SIM card	None														
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card														
Ethernet	Realtek® RTL8111GUS Gigabit Network Connection														
Audio support	High Definition (HD) Audio, Conexant CX20751-21Z codec / stereo speakers, Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	None														
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor														
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available														

See footnotes for more detailed information  
US model(s) announced January 21, 2014

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Supports ThinkVantage® technologies  
  
65-watt AC adapter  
EPEAT™ Gold rating  
ENERGY STAR® 5.2-compliant  
RoHS-compliant  
International Warranty Service<sup>17</sup>  
24 hour x 7 day<sup>18</sup> toll-free support  
during the warranty period<sup>12</sup>

# ThinkPad® E540 20C6 (Intel) - TopSeller - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	SIM card	Numeric Keypad	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20C6008TUS	i5-4200M	4+2GB	15.6" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C60096US	i7-4702MQ	8GBx1	15.6" HD	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6008VUS	i3-4000M	2GBx1	15.6" HD	720p	320G 7200	Intel 7260 + BT	None	None	Numpad	Black	None	6	48	Win7 Pro64	01/14
20C60097US	i5-4200M	4+2GB	15.6" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6008UUS	i5-4200M	4GBx1	15.6" HD	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6008RUS	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	16GB	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C60092US	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	16GB	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6008YUS	i3-4000M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	None	6	48	Win8 Pro64	01/14
20C60093US	i7-4702MQ	8GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6008RUS	i7-4702MQ	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6008QUS	i7-4702MQ	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6008XUS	i7-4702MQ	8GBx1	15.6" HD	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C60091US	i5-4200M	4GBx1	15.6" HD	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C60090US	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6008WUS	i3-4000M	4GBx1	15.6" HD	720p	320G 7200	Intel 7260 + BT	None	None	Numpad	Black	None	6	48	Win7 Pro64	01/14
20C6008SUS	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C60095US	i3-4000M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C60094US	i7-4702MQ	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles <b>Intel® Core™ i3-4000M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4600</b> , DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-4200M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4600</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology <b>Intel Core i7-4702MQ processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4600</b> , DDR3L memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										<b>Preloaded operating system<sup>20</sup></b> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<b>Preloaded applications</b> (only some listed) - <b>Windows 7 models</b> • Adobe® Reader®  - <b>Windows 8 models</b> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage  - <b>All models</b> • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate				
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™														
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot														
Widescreen display	<b>15.6"</b> (396mm) <b>HD (1366x768)</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio														
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator														
Graphics	<b>Intel HD Graphics 4600</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display														
Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad														
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>														
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch														
ThinkLight™	None														
Dimensions <sup>3</sup>	15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm 6-cell: from 5.4 lb (2.46kg)														
Weight <sup>2</sup>	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom														
Case color	Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Case material	Lithium Ion 6-cell														
Battery - type <sup>37</sup>	6-cell (48Whr): up to 6.2 hr														
Battery - life <sup>10</sup>	6-cell (62Whr): up to 7.4 hr														
Chipset	<b>Mobile Intel HM87 Express Chipset</b>														
ExpressCard	None														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)														
PCIe Mini Card	One PCI Express Half Mini Card slot														
PCIe WLAN <sup>4</sup>	11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2														
M.2 Card	One M.2 Card slot for support of WWAN card or SSD														
M.2 WWAN	None														
SIM card	None														
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card														
Ethernet	Realtek® RTL8111GUS Gigabit Network Connection														
Audio support	High Definition (HD) Audio, Conexant CX20751-21Z codec / stereo speakers, Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	None														
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor														
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available														

See footnotes for more detailed information  
US model(s) announced January 21, 2014

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Supports ThinkVantage® technologies  
  
65-watt AC adapter  
EPEAT™ Gold rating  
ENERGY STAR® 5.2-compliant  
RoHS-compliant  
International Warranty Service<sup>17</sup>  
24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup>

# ThinkPad® E540 20C6 (Intel) - TopSeller (MultiTouch)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	SIM card	Numeric Keypad	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20C6005KUS	i5-4200M	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6005PUS	i7-4702MQ	8GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6005LUS	i7-4702MQ	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6005MUS	i5-4200M	4GBx1	15.6" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6005NUS	i7-4702MQ	8GBx1	15.6" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6005JUS	i3-4000M	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6008NUS	i5-4200M	4GBx1	15.6" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8.1 Pro64	01/14
20C6008MUS	i5-4200M	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8.1 Pro64	01/14
20C6008LUS	i7-4702MQ	8GBx1	15.6" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8.1 Pro64	01/14
20C6008JUS	i3-4000M	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8.1 Pro64	01/14
20C6008KUS	i7-4702MQ	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8.1 Pro64	01/14

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles <b>Intel® Core™ i3-4000M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4600</b> , DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-4200M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4600</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology <b>Intel Core i7-4702MQ processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4600</b> , DDR3L memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> - Some: Windows 8 Pro 64-bit - Some: Windows 8.1 Pro 64-bit	
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		<b>Preloaded applications</b> (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate	
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™			
M.2 SSD	None			
Widescreen display	<b>15.6"</b> (396mm) <b>HD (1366x768)</b> , anti-glare, <b>10-point touch screen</b> LED backlight, 200 nits, 16:9 aspect ratio			
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator			
Graphics	<b>Intel HD Graphics 4600</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display			
Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad			
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>			
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch			
ThinkLight™	None			
Dimensions <sup>3</sup>	15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm <i>6-cell:</i> from 5.4 lb (2.46kg)			
Weight <sup>2</sup>	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom			
Case color	Acrylonitrile-Butadiene-Styrene (ABS) plastic			
Battery - type <sup>37</sup>	Lithium Ion 6-cell			
Battery - life <sup>10</sup>	<i>6-cell (48Whr):</i> up to 6.2 hr <i>6-cell (62Whr):</i> up to 7.4 hr			
Chipset	<b>Mobile Intel HM87 Express Chipset</b>			
ExpressCard	None			
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)			
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)			
PCIe Mini Card	One PCI Express Half Mini Card slot			
PCIe WLAN <sup>4</sup>	11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2			
M.2 Card	One M.2 Card slot for support of WWAN card or SSD			
M.2 WWAN	None			
SIM card	None			
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card			
Ethernet	Realtek® RTL8111GUS Gigabit Network Connection			
Audio support	High Definition (HD) Audio, Conexant CX20751-21Z codec / stereo speakers, Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	None			
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor			
Limited warranty <sup>12</sup>	1-year - depot repair service / service upgrades <sup>22</sup> available			

See footnotes for more detailed information  
US model(s) announced January 21, 2014

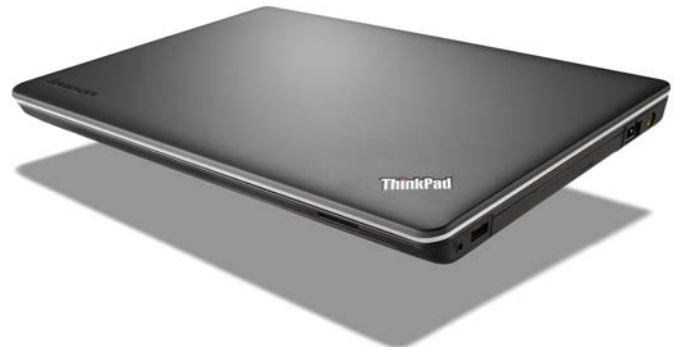
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ThinkPad®



Lenovo® ThinkPad Edge E545



Lenovo ThinkPad Edge E545



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Lenovo ThinkPad Edge E545



# ThinkPad® Edge E545 20B2 (AMD) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	PCIe Mini Card WWAN /mSATA	Card Numeric Keypad	Top color	Micro-phone	Finger-print reader	Bat-tery cells	Preload	Ann date (mm/yy)
20B2001CUS	A6-5350M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Prem 64	01/14
20B2001DUS	A6-5350M	2GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Prem 64	01/14

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; two spindles <b>AMD Accelerated Processor A6-5350M</b> (dual-core, 2.90GHz, 1MB L2 cache), integrated AMD Radeon HD 8450G Graphics, AMD Turbo Core technology (up to 3.50GHz), integrated DDR3 memory controller (up to 1600MHz)		<b>Preloaded operating system</b> <sup>20</sup> - Genuine Windows® 7 Home Premium 64  <b>Preloaded applications</b> (only some listed) • Adobe® Reader® • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	<b>15.6"</b> (396mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio		
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator		
Graphics	<b>AMD Radeon HD Graphics</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution: 1920x1200 (HDMI)@60Hz</i>		
Keyboard	<i>Matte black (top):</i> 6-row, spill-resistant, multimedia Fn keys, numeric keypad		
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>		
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, multi-touch		
ThinkLight™	None		
Dimensions <sup>3</sup>	<i>Matte black or Matte red (top):</i> 15.6W" (WxDxH): 14.84" x 9.65" x 1.12-1.35"; 377 x 245mm x 28.5-34.3mm		
Weight <sup>2</sup>	<i>6-cell:</i> from 5.2 lb (2.37kg)		
Case color	Matte black (top), trimmed with a thin silver band (side); black bottom		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type <sup>37</sup>	Lithium Ion 6-cell		
Battery - life <sup>10</sup>	<i>6-cell (48Whr):</i> up to 6.2 hr		
Chipset	<b>AMD A76M FCH</b>		
ExpressCard	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Three USB 3.0, one USB 2.0 (powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card	One PCI Express Mini Card slot		
WLAN <sup>4</sup>	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1		
WWAN	None		
Modem	None		
Bluetooth™	None		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2/ Stereo digital microphone or Mono digital microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	None		
Fingerprint reader	None		
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available		

Supports ThinkVantage® technologies
65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>

See footnotes for more detailed information  
US model(s) announced January 7, 2014

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# ThinkPad® Edge E545 20B2 (AMD) - TopSeller (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>3</sup> rpm	PCle Mini Card WLAN / BT	PCle Mini Card WWAN /mSATA	Numeric Keypad	Top color	Micro-phone	Finger-print reader	Bat-tery cells	Preload	Ann date (mm/yy)
20B2000SUS	A10-5750M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win8 64	08/13
20B20010US	A8-4500M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000VUS	A6-5350M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win8 64	08/13
20B20011US	A6-5350M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000KUS	A8-5550M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000XUS	A10-5750M	8GBx1	15.6" HD	720p	1TB 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B20012US	A6-5350M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win8 64	08/13
20B2000WUS	A8-5550M	8GBx1	15.6" HD	720p	1TB 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000YUS	A10-5750M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000RUS	A10-5750M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000UUS	A6-5350M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win8 64	08/13
20B2000TUS	A8-4500M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win8 64	08/13
20B2000QUS	A8-5550M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win8 Pro64	08/13
20B2001BUS	A6-5350M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win8 64	10/13
20B2001AUS	A6-5350M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win8 Pro64	10/13
20B20019US	A6-5350M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	10/13

Positioning Processor	<p><i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i>  <b>AMD Accelerated Processor A6-5350M</b> (dual-core, 2.90GHz, 1MB L2 cache), integrated AMD Radeon HD 8450G Graphics, AMD Turbo Core technology (up to 3.50GHz), integrated DDR3 memory controller (up to 1600MHz)  <b>AMD Accelerated Processor A8-4500M</b> (quad-core, 1.90GHz, 4MB L2 cache), integrated AMD Radeon HD 7640G Graphics, AMD Turbo Core technology (up to 2.80GHz), integrated DDR3 memory controller (up to 1600MHz)  <b>AMD Accelerated Processor A8-5550M</b> (quad-core, 2.10GHz, 4MB L2 cache), integrated AMD Radeon HD 8550G Graphics, AMD Turbo Core technology (up to 3.10GHz), integrated DDR3 memory controller (up to 1600MHz)  <b>AMD Accelerated Processor A10-5750M</b> (quad-core, 2.50GHz, 4MB L2 cache), integrated AMD Radeon HD 8650G Graphics, AMD Turbo Core technology (up to 3.50GHz), integrated DDR3 memory controller (up to 1600MHz)</p>									<p><b>Preloaded operating system<sup>20</sup></b>  - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit  - <i>Some:</i> Windows 8 64-bit  - <i>Some:</i> Windows 8 Pro 64-bit</p> <p><b>Preloaded applications</b> (only some listed)  - <b>Windows 7 models</b>  • Adobe® Reader®</p> <p>- <b>Windows 8 models</b>  • Lenovo Support  • Lenovo Companion  • Lenovo Cloud Storage</p> <p>- <b>All models</b> (exclude DOS and No OS models)  • ThinkVantage System Update  • Norton™ Internet Security (30 days of virus definitions)  • Microsoft Office preloaded; purchase a product key to activate</p>				
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets													
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™													
mSATA™ SSD	None													
Widescreen display	<b>15.6"</b> (396mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio													
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator													
Graphics	<b>AMD Radeon HD Graphics</b> in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution: 1920x1200 (HDMI) @60Hz</i>													
Keyboard	<i>Matte black (top):</i> 6-row, spill-resistant, multimedia Fn keys, numeric keypad													
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>													
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, multi-touch													
ThinkLight™	None													
Dimensions <sup>3</sup>	<i>Matte black or Matte red (top):</i> 15.6W" (WxDxH): 14.84" x 9.65" x 1.12-1.35"; 377 x 245mm x 28.5-34.3mm													
Weight <sup>2</sup>	<i>6-cell:</i> from 5.2 lb (2.37kg)													
Case color	Matte black (top), trimmed with a thin silver band (side); black bottom													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type <sup>37</sup>	Lithium Ion 6-cell													
Battery - life <sup>10</sup>	<i>6-cell (48Whr):</i> up to 6.2 hr													
Chipset	<b>AMD A76M FCH</b>													
ExpressCard	None													
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
Ports	Three USB 3.0, one USB 2.0 (powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)													
PCle Mini Card WLAN <sup>4</sup>	One PCI Express Mini Card slot <i>Some:</i> 11b/g/n, PCle Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11b/g/n, PCle Half Mini Card, ThinkPad 11b/g/n, Wi-Fi + Bluetooth combo adapter, 1x1													
WWAN	None													
Modem	None													
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCle Half Mini Card													
Ethernet	Realtek® RTL8111F Gigabit Network Connection													
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2/ Stereo digital microphone or Mono digital microphone, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	None													
Fingerprint reader	None													
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available													

See footnotes for more detailed information  
US model(s) announced August 20, or October 15, 2013

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ThinkPad®



Lenovo® ThinkPad S1 Yoga



Lenovo ThinkPad S1 Yoga



Lenovo ThinkPad S1 Yoga



Lenovo ThinkPad S1 Yoga



Lenovo ThinkPad S1 Yoga



Lenovo ThinkPad S1 Yoga

# ThinkPad® S1 Yoga (20CD) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Screen type	Pen	Camera	Disk SATA GB <sup>3</sup> rpm	PCIe Mini Card WLAN	M.2 Card WWAN /SSD	SIM card	Top color	Battery cells	Preload	Ann date (mm/yy)
20CD0002US	i7-4500U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	Intel 7260 + BT	None	None	Black	8	Win8.1 64	11/13
20CD0000GUS	i3-4010U	4GB	12.5" HD	anti-smudge	None	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD0000HUS	i5-4200U	4GB	12.5" HD	anti-smudge	None	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD0000JUS	i5-4200U	4GB	12.5" FHD	anti-smudge	None	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD0000KUS	i7-4500U	8GB	12.5" HD	anti-smudge	None	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD0000LUS	i7-4500U	8GB	12.5" FHD	anti-smudge	None	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD0000MUS	i5-4200U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD0000NUS	i5-4200U	4GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	Intel 7260 ac + BT	None	None	Black	8	Win8.1 Pro64	11/13
20CD002FUS	i5-4200U	4GB	12.5" HD	anti-smudge	None	720p	256G SSD	Intel 7260 ac + BT	None	None	Black	8	Win8.1 Pro64	11/13
20CD002GUS	i5-4200U	4GB	12.5" FHD	anti-smudge	None	720p	256G SSD	Intel 7260 ac + BT	None	None	Black	8	Win8.1 Pro64	11/13
20CD00AYUS	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	01/14
20CD00C5US	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	Intel 7260 ac + BT	None	None	Black	8	Win7 Pro64	01/14

Positioning Processor	Convertible tablet ultrabook™; one spindle <b>Intel® Core™ i3-4010U processor (2 cores, 1.70GHz, 3MB Cache), Intel HD Graphics 4400,</b> DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-4200U processor (2 cores, 1.60GHz, 3MB Cache), Intel HD Graphics 4400,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology <b>Intel Core i7-4500U processor (2 cores, 1.80GHz, 4MB Cache), Intel HD Graphics 4400,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.00GHz), HT technology			<b>Preloaded operating system</b> <sup>20</sup> - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8.1 Pro 64-bit - <i>Some:</i> Windows 8.1 64-bit - <i>Some:</i> Windows 8.1 Pro 64-bit  <b>Preloaded applications</b> <sup>14</sup> (only some listed, for Windows 8.1 models) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™
Memory	4GB or 8GB / PC3-12800 1600MHz DDR3L / soldered to systemboard, no SO-DIMM sockets			
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot			
M.2 SSD				
Widescreen display	<i>Some:</i> <b>12.5"</b> (317.5mm) <b>HD (1366x768) TFT color</b> , smudgeless, 10-point touch screen LED backlight, 300 nits, 16:9 aspect ratio, IPS; <i>Some:</i> <b>12.5"</b> (317.5mm) <b>FHD (1920x1080) TFT color</b> , smudgeless, 10-point touch screen LED backlight, 400 nits, 16:9 aspect ratio, IPS; <i>Some:</i> <b>12.5"</b> (317.5mm) <b>FHD (1920x1080) TFT color</b> , anti-glare, 10-point touch screen with Pen, LED backlight, 400 nits, 16:9 aspect ratio, IPS HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	<b>Intel HD Graphics 4400</b> in processor, supports external digital monitor via Mini HDMI; supports dual independent display; <i>Maximum external resolution: 1920x1200 (Mini HDMI)@60Hz</i>			
Keyboard TrackPoint®	6-row, 83-key, spill-resistant, multimedia Fn keys, LED backlight			
Touchpad	TrackPoint pointing device			
Light sensor	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch			
ThinkLight™	Ambient light sensor			
Dimensions <sup>3</sup>	8-cell: 12.44" x 8.70" x 0.74"; 316mm x 221mm x 18.8mm 8-cell with Pen: 12.44" x 8.70" x 0.76"; 316mm x 221mm x 19.4mm			
Weight <sup>2</sup>	8-cell: from 3.46 lb (1.57kg) 8-cell with Pen: from 3.59 lb (1.63kg)			
Case material	Display cover: Magnesium and Aluminum + Polyphenylene sulfide (PPS); Bottom: Magnesium and Aluminum + Polyphenylene sulfide (PPS);			
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication			
Battery - life <sup>10</sup>	8-cell (47Whr): up to 7.0 hr			
Multicard Reader ExpressCard	4-in-1 reader (SD, SDHC, SDXC, MMC)			
Ports	None Two USB 3.0(one powered), external monitor (mini-HDMI)			
PCIe Mini Card	One PCI Express Mini Card slot			
PCIe WLAN <sup>4</sup>	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2 <i>Some:</i> 11ac, PCIe Half Mini Card, Intel Dual Band Wireless-AC 7260, Wi-Fi + Bluetooth combo adapter, 2x2			
M.2 Card WWAN	One M.2 Card slot for support of WWAN card or SSD			
Bluetooth™	None			
Ethernet	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card			
Intel AMT	None			
Audio support	High Definition (HD) Audio, Conexant CX20751 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Fingerprint reader	None			
Limited warranty <sup>12</sup>	1-year - depot repair service / service upgrades <sup>22</sup> available			

See footnotes for more detailed information

US model(s) announced November 5, 2013; or January 28, 2014

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(STLA1-1) January 2014



# ThinkPad® S1 Yoga (20CD) - TopSeller - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Screen type	Pen	Camera	Disk SATA GB <sup>3</sup> rpm	PCIe Mini Card WLAN	M.2 Card WWAN /SSD	Top color	Battery cells	Preload	Ann date (mm/yy)
20CD002HUS	i7-4500U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002JUS	i7-4500U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002PUS	i5-4200U	4GB	12.5" HD	anti-smudge	None	720p	128G SSD	Intel 7260 + BT	None	Black	8	Win8.1 64	11/13
20CD002QUS	i5-4200U	4GB	12.5" FHD	anti-glare	Pen	720p	128G SSD	Intel 7260 + BT	None	Black	8	Win8.1 64	11/13
20CD002RUS	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	Intel 7260 + BT	None	Black	8	Win8.1 64	11/13
20CD002SUS	i5-4200U	4GB	12.5" HD	anti-smudge	None	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002TUS	i5-4200U	4GB	12.5" FHD	anti-glare	Pen	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002UUS	i7-4500U	8GB	12.5" HD	anti-smudge	None	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002VUS	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002WUS	i7-4500U	8GB	12.5" FHD	anti-smudge	None	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002XUS	i5-4200U	4GB	12.5" FHD	anti-smudge	None	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD00AYUS	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	Intel 7260 ac + BT	16GB	Black	8	Win8.1 Pro64	12/13
20CD00AWUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	01/14
20CD00AXUS	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	01/14
20CD00B1US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	01/14
20CD00AVUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	01/14
20CD00B2US	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	01/14
20CD00B0US	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	12/13
Positioning Processor	Convertible tablet ultrabook™; one spindle Intel® Core™ i5-4200U processor (2 cores, 1.60GHz, 3MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i5-4300U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-4500U processor (2 cores, 1.80GHz, 4MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.00GHz), HT technology Intel Core i7-4600U processor (2 cores, 2.10GHz, 4MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology									Preloaded operating system <sup>20</sup> - Some: Windows 8.1 64-bit - Some: Windows 8.1 Pro 64-bit  Preloaded applications <sup>14</sup> (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™			
Memory	4GB or 8GB / PC3-12800 1600MHz DDR3L / soldered to systemboard, no SO-DIMM sockets												
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ Some: M.2 Solid State Drive (SSD), via M.2 Card slot												
M.2 SSD													
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color, smudgeless, 10-point touch screen LED backlight, 300 nits, 16:9 aspect ratio, IPS; Some: 12.5" (317.5mm) FHD (1920x1080) TFT color, smudgeless, 10-point touch screen LED backlight, 400 nits, 16:9 aspect ratio, IPS; Some: 12.5" (317.5mm) FHD (1920x1080) TFT color, anti-glare, 10-point touch screen with Pen, LED backlight, 400 nits, 16:9 aspect ratio, IPS HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4400 in processor, supports external digital monitor via Mini HDMI; supports dual independent display; Maximum external resolution: 1920x1200 (Mini HDMI) @60Hz												
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys, LED backlight												
TrackPoint®	TrackPoint pointing device												
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch												
Light sensor	Ambient light sensor												
ThinkLight™	None												
Dimensions <sup>3</sup>	8-cell: 12.44" x 8.70" x 0.74"; 316mm x 221mm x 18.8mm 8-cell with Pen: 12.44" x 8.70" x 0.76"; 316mm x 221mm x 19.4mm												
Weight <sup>2</sup>	8-cell: from 3.46 lb (1.57kg) 8-cell with Pen: from 3.59 lb (1.63kg)												
Case material	Display cover: Magnesium and Aluminum + Polyphenylene sulfide (PPS); Bottom: Magnesium and Aluminum + Polyphenylene sulfide (PPS);												
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication												
Battery - life <sup>10</sup>	8-cell (47Whr): up to 7.0 hr												
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)												
ExpressCard	None												
Ports	Two USB 3.0(one powered), external monitor (mini-HDMI)												
PCIe Mini Card	One PCI Express Mini Card slot												
PCIe WLAN <sup>4</sup>	Some: 11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2 Some: 11ac, PCIe Half Mini Card, Intel Dual Band Wireless-AC 7260, Wi-Fi + Bluetooth combo adapter, 2x2												
M.2 Card	One M.2 Card slot for support of WWAN card or SSD												
WWAN	None												
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card									Supports ThinkVantage® technologies			
Ethernet	None												
Intel AMT	None												
Audio support	High Definition (HD) Audio, Conexant CX20751 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack									45-watt AC Adapter ENERGY STAR® compliant ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>			
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	None									For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet			
Limited warranty <sup>12</sup>	1-year - depot repair service / service upgrades <sup>22</sup> available												

See footnotes for more detailed information

US model(s) announced November 5 or December 17, 2013 or January 5, 2014

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(STLA1-2) January 2014

Type-model	Processor	Memory	Widescreen display	Screen type	Pen	Camera	Disk SATA GB <sup>3</sup> rpm	PCIe Mini Card WLAN	M.2 Card WWAN /SSD	SIM card	Top color	Bat-tery cells	Intel vPro	Preload	Ann date (mm/yy)
20CD00BXUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00BYUS	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00C0US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win7 Pro64	01/14
20CD00C3US	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win7 Pro64	01/14
20CD00C1US	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win7 Pro64	01/14
20CD00C2US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win7 Pro64	01/14
20CD00C4US	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win7 Pro64	01/14
20CD00B2US	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00B1US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00AXUS	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00AVUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00AWUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14

Positioning Processor	Convertible tablet ultrabook™; one spindle <b>Intel® Core™ i5-4300U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology</b> <b>Intel Core i7-4600U processor (2 cores, 2.10GHz, 4MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology</b>											<b>Preloaded operating system<sup>20</sup></b> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8.1 Pro 64-bit - Some: Windows 8.1 Pro 64-bit		
Memory	4GB or 8GB / PC3-12800 1600MHz DDR3L / soldered to systemboard, no SO-DIMM sockets											<b>Preloaded applications<sup>14</sup></b> (only some listed, for Windows 8.1 models) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™		
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ Some: M.2 Solid State Drive (SSD), via M.2 Card slot													
M.2 SSD														
Widescreen display	Some: <b>12.5"</b> (317.5mm) <b>HD (1366x768) TFT color</b> , smudgeless, 10-point touch screen LED backlight, 300 nits, 16:9 aspect ratio, IPS; Some: <b>12.5"</b> (317.5mm) <b>FHD (1920x1080) TFT color</b> , smudgeless, 10-point touch screen LED backlight, 400 nits, 16:9 aspect ratio, IPS; Some: <b>12.5"</b> (317.5mm) <b>FHD (1920x1080) TFT color</b> , anti-glare, 10-point touch screen with Pen, LED backlight, 400 nits, 16:9 aspect ratio, IPS HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Camera														
Graphics	<b>Intel HD Graphics 4400</b> in processor, supports external digital monitor via Mini HDMI; supports dual independent display; <b>Maximum external resolution: 1920x1200 (Mini HDMI)@60Hz</b>													
Keyboard TrackPoint®	6-row, 83-key, spill-resistant, multimedia Fn keys, LED backlight													
Touchpad	TrackPoint pointing device													
Light sensor	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch													
ThinkLight™	Ambient light sensor													
Dimensions <sup>3</sup>	8-cell: 12.44" x 8.70" x 0.74"; 316mm x 221mm x 18.8mm 8-cell with Pen: 12.44" x 8.70" x 0.76"; 316mm x 221mm x 19.4mm													
Weight <sup>2</sup>	8-cell: from 3.46 lb (1.57kg) 8-cell with Pen: from 3.59 lb (1.63kg)													
Case material	Display cover: Magnesium and Aluminum + Polyphenylene sulfide (PPS); Bottom: Magnesium and Aluminum + Polyphenylene sulfide (PPS);													
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication													
Battery - life <sup>10</sup>	8-cell (47Whr): up to 7.0 hr													
Multicard Reader ExpressCard	4-in-1 reader (SD, SDHC, SDXC, MMC)													
Ports	None Two USB 3.0(one powered), external monitor (mini-HDMI)													
PCIe Mini Card	One PCI Express Mini Card slot													
PCIe WLAN <sup>4</sup>	11ac, PCIe Half Mini Card, Intel Dual Band Wireless-AC 7260, Wi-Fi + Bluetooth combo adapter, 2x2													
M.2 Card WWAN	One M.2 Card slot for support of WWAN card or SSD													
Bluetooth™	None													
Ethernet	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card													
Intel AMT	None													
Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20751 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole													
Security														
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	None													
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available													

See footnotes for more detailed information  
US model(s) announced January 28, 2014

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Type-model	Processor	Memory	Widescreen display	Screen type	Pen	Camera	Disk SATA GB <sup>3</sup> rpm	PCIe Mini Card WLAN	M.2 Card WWAN /SSD	SIM card	Top color	Bat-tery cells	Intel vPro	Preload	Ann date (mm/yy)
20C0004PUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0003WUS	i5-4300U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004VUS	i5-4300U	8GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00041US	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004WUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004EUS	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0003XUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004BUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00045US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004EUS	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00042US	i5-4300U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004JUS	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004LUS	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00046US	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004RUS	i5-4300U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004UUS	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004NUS	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14

Positioning Processor	<i>Convertible tablet ultrabook™; one spindle</i> <b>Intel® Core™ i5-4300U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology</b> <b>Intel Core i7-4600U processor (2 cores, 2.10GHz, 4MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology</b>										<b>Preloaded operating system<sup>20</sup></b> - Some: Windows 8.1 Pro 64-bit <b>Preloaded applications<sup>14</sup></b> (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™				
Memory	4GB or 8GB / PC3-12800 1600MHz DDR3L / soldered to systemboard, no SO-DIMM sockets														
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™														
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot														
Widescreen display	Some: <b>12.5"</b> (317.5mm) <b>HD (1366x768) TFT color</b> , smudgeless, 10-point touch screen LED backlight, 300 nits, 16:9 aspect ratio, IPS; Some: <b>12.5"</b> (317.5mm) <b>FHD (1920x1080) TFT color</b> , smudgeless, 10-point touch screen LED backlight, 400 nits, 16:9 aspect ratio, IPS; Some: <b>12.5"</b> (317.5mm) <b>FHD (1920x1080) TFT color</b> , anti-glare, 10-point touch screen with Pen, LED backlight, 400 nits, 16:9 aspect ratio, IPS HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	<b>Intel HD Graphics 4400</b> in processor, supports external digital monitor via Mini HDMI; supports dual independent display; <i>Maximum external resolution: 1920x1200 (Mini HDMI)@60Hz</i>														
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys, LED backlight														
TrackPoint®	TrackPoint pointing device														
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch														
Light sensor	Ambient light sensor														
ThinkLight™	None														
Dimensions <sup>3</sup>	<i>8-cell:</i> 12.44" x 8.70" x 0.74"; 316mm x 221mm x 18.8mm <i>8-cell with Pen:</i> 12.44" x 8.70" x 0.76"; 316mm x 221mm x 19.4mm														
Weight <sup>2</sup>	<i>8-cell:</i> from 3.46 lb (1.57kg) <i>8-cell with Pen:</i> from 3.59 lb (1.63kg)														
Case material	<i>Display cover:</i> Magnesium and Aluminum + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium and Aluminum + Polyphenylene sulfide (PPS);														
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication														
Battery - life <sup>10</sup>	<i>8-cell (47Whr):</i> up to 7.0 hr														
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)														
ExpressCard	None														
Ports	Two USB 3.0 (one powered), external monitor (mini-HDMI)														
Dongle	Lenovo Mini-HDMI to VGA Monitor Cable														
PCIe Mini Card	One PCI Express Mini Card slot														
PCIe WLAN <sup>4</sup>	11ac, PCIe Half Mini Card, Intel Dual Band Wireless-AC 7260, Wi-Fi + Bluetooth combo adapter, 2x2														
M.2 Card	One M.2 Card slot for support of WWAN card or SSD														
WWAN	None														
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card														
Ethernet	None														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant CX20751 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	None														
Limited warranty <sup>12</sup>	<b>3-year</b> - depot repair service / service upgrades <sup>22</sup> available														

See footnotes for more detailed information  
US model(s) announced January 28, 2014



# ThinkPad® S1 Yoga (20C0) - Onsite

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Screen type	Pen	Camera	Disk SATA GB <sup>3</sup> rpm	PCIe Mini Card WLAN	M.2 Card WWAN /SSD	SIM card	Top color	Bat-tery cells	Intel vPro	Preload	Ann date (mm/yy)
20C0003YUS	i5-4300U	8GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004DUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004AUS	i5-4300U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00040US	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004FUS	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004CUS	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004MUS	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004HUS	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00044US	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004QUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004TUS	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00043US	i5-4300U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004GUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00047US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004KUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004SUS	i5-4300U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00048US	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14

Positioning Processor	Convertible tablet ultrabook™; one spindle <b>Intel® Core™ i5-4300U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology</b> <b>Intel Core i7-4600U processor (2 cores, 2.10GHz, 4MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology</b>			<b>Preloaded operating system</b> <sup>20</sup> - Some: Windows 8.1 Pro 64-bit <b>Preloaded applications</b> <sup>14</sup> (only some listed) <ul style="list-style-type: none"><li>• Lenovo Support</li><li>• Lenovo Companion</li><li>• Lenovo Cloud Storage</li><li>• Password Manager</li><li>• ThinkVantage System Update</li><li>• Norton™ Internet Security (30 days of virus definitions)</li><li>• Microsoft Office preloaded; purchase a product key to activate</li><li>• Skype™</li></ul>		
Memory	4GB or 8GB / PC3-12800 1600MHz DDR3L / soldered to systemboard, no SO-DIMM sockets					
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ Some: M.2 Solid State Drive (SSD), via M.2 Card slot					
M.2 SSD						
Widescreen display	Some: <b>12.5"</b> (317.5mm) <b>HD (1366x768) TFT color</b> , smudgeless, 10-point touch screen LED backlight, 300 nits, 16:9 aspect ratio, IPS; Some: <b>12.5"</b> (317.5mm) <b>FHD (1920x1080) TFT color</b> , smudgeless, 10-point touch screen LED backlight, 400 nits, 16:9 aspect ratio, IPS; Some: <b>12.5"</b> (317.5mm) <b>FHD (1920x1080) TFT color</b> , anti-glare, 10-point touch screen with Pen, LED backlight, 400 nits, 16:9 aspect ratio, IPS HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus					
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus					
Graphics	<b>Intel HD Graphics 4400</b> in processor, supports external digital monitor via Mini HDMI; supports dual independent display; <i>Maximum external resolution: 1920x1200 (Mini HDMI)@60Hz</i>					
Keyboard TrackPoint® Touchpad Light sensor ThinkLight™	6-row, 83-key, spill-resistant, multimedia Fn keys, LED backlight TrackPoint pointing device UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch Ambient light sensor None					
Dimensions <sup>3</sup>	8-cell: 12.44" x 8.70" x 0.74"; 316mm x 221mm x 18.8mm 8-cell with Pen: 12.44" x 8.70" x 0.76"; 316mm x 221mm x 19.4mm					
Weight <sup>2</sup>	8-cell: from 3.46 lb (1.57kg) 8-cell with Pen: from 3.59 lb (1.63kg)					
Case material	Display cover: Magnesium and Aluminum + Polyphenylene sulfide (PPS); Bottom: Magnesium and Aluminum + Polyphenylene sulfide (PPS);					
Battery - type Battery - life <sup>10</sup>	Integrated Li-Polymer 8-cell, HW Authentication 8-cell (47Whr): up to 7.0 hr					
Multicard Reader ExpressCard Ports Dongle	4-in-1 reader (SD, SDHC, SDXC, MMC) None Two USB 3.0(one powered), external monitor (mini-HDMI) Lenovo Mini-HDMI to VGA Monitor Cable					
PCIe Mini Card PCIe WLAN <sup>4</sup>	One PCI Express Mini Card slot 11ac, PCIe Half Mini Card, Intel Dual Band Wireless-AC 7260, Wi-Fi + Bluetooth combo adapter, 2x2					
M.2 Card WWAN Bluetooth™ Ethernet Intel AMT Audio support	One M.2 Card slot for support of WWAN card or SSD None Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card None Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20751 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack			Supports ThinkVantage® technologies		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None			45-watt AC Adapter ENERGY STAR® compliant ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>		
Limited warranty <sup>12</sup>	3-year/1-year battery, <b>limited onsite service</b> / service upgrades <sup>22</sup> available			For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet		

See footnotes for more detailed information  
US model(s) announced January 28, 2014

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ThinkPad®



Lenovo® ThinkPad S3-S431



Lenovo® ThinkPad S3-S431



Lenovo® ThinkPad S3-S431



Lenovo® ThinkPad S3-S431



Lenovo® ThinkPad S3-S431



Lenovo® ThinkPad S3-S431

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>5</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20AX0000US	i3-3227U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win7 Pro64	06/13
20AX0001US	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win7 Pro64	06/13
20AX000MUS	i7-3687U	8GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win7 Pro64	06/13
20AX000NUS	i3-3227U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win8 Pro64	06/13
20AX000PUS	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win8 Pro64	06/13
20AX000QUS	i7-3687U	8GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win8 Pro64	06/13
20AX000RUS	i3-3227U	4GBx1	14.0" HD	720p	320G 7200	TP 11a/b/g/n + BT	None	Black	Finger	4	46	Win7 Pro64	06/13
20AX000SUS	i3-3227U	4GBx1	14.0" HD	720p	320G 7200	TP 11a/b/g/n + BT	None	Black	Finger	4	46	Win8 Pro64	06/13
20AX004KUS	i5-3437U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win7 Pro64	11/13

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; one spindles Intel® Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3437U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-3687U processor (2 cores, 2.10GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system <sup>20</sup> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit	
Memory	8GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket		Preloaded applications (only some listed) - Windows 7 models • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Adobe® Reader®	
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable, Active Protection System™		- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage	
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot		- All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate	
Widescreen display	14.0" (355mm) HD (1366x768) color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio			
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator			
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ (supporting HDCP to output protected content); Max external resolution: 1920x1200 (HDMI) @60Hz			
Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight			
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>			
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch			
ThinkLight™	None			
Dimensions <sup>3</sup>	14.0W" (WxDxH): 13.11" x 8.86" x 0.81"; 332.8mm x 224.8mm x 20.3mm			
Weight <sup>2</sup>	4-cell: from 3.92 lb (1.78kg)			
Case color	Black or silver (top); black bottom			
Case material	Sand Blast Aluminum			
Battery - type <sup>37</sup>	Li-Polymer 4-cell (46Whr)			
Battery - life <sup>10</sup>	MobileMark 2007: Windows 7: up to 9.1 hr MobileMark 2012: Windows 8: up to 5.9 hr			
Chipset	Mobile Intel HM76 Express Chipset			
ExpressCard	None			
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)			
Ports	One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)			
PCIe Mini Card	One PCI Express Mini Card slot			
PCIe WLAN <sup>4</sup>	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2		Supports ThinkVantage® technologies	
M.2 Card	One M.2 Card slot for support of WWAN card or SSD			
M.2 WWAN	None		65-watt AC adapter	
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card		ENERGY STAR® compliant	
Ethernet	Realtek® RTL8111F Gigabit Network Connection		RoHS-compliant	
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / dual array microphone, combo audio/mic jack		International Warranty Service <sup>17</sup>	
Security	Power-on password, hard disk password, supervisor password, security keyhole		24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>	
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor		For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet	
Limited warranty <sup>12</sup>	1-year - depot repair service / service upgrades <sup>22</sup> available			

See footnotes for more detailed information  
US model(s) announced June 4, or November 19, 2013

# ThinkPad® S3-S431 20AX (AMD HD) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20AX003WUS	i3-3217U	4GBx1	14.0" HD+	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win7 Pro64	07/13

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; one spindles Intel® Core™ i3-3217U processor (2 cores, 1.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology		<b>Preloaded operating system<sup>20</sup></b> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit <b>Preloaded applications</b> (only some listed) - <b>Windows 7 models</b> <ul style="list-style-type: none"><li>• Access Connections™</li><li>• ThinkVantage Power Manager</li><li>• ThinkVantage Tools</li><li>• Adobe® Reader®</li></ul> - <b>Windows 8 models</b> <ul style="list-style-type: none"><li>• Lenovo Support</li><li>• Lenovo Companion</li><li>• Lenovo Cloud Storage</li></ul> - <b>All models</b> <ul style="list-style-type: none"><li>• ThinkVantage System Update</li><li>• Norton™ Internet Security (30 days of virus definitions)</li><li>• Skype™</li><li>• Microsoft Office 2013 preloaded; purchase product key to activate</li></ul>
Memory	8GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket		
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable, Active Protection System™		
M.2 SSD	M.2 Solid State Drive (SSD), via M.2 Card slot		
Widescreen display	Some: <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio Some: <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio		
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator		
Graphics	<b>AMD Radeon™ HD 8670M Graphics, 1GB</b> memory external digital monitor support via HDMI™; Max external resolution: 1920x1200 (HDMI)@60Hz		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys, LED backlight TrackPoint pointing device, Internet Scroll Bar <sup>13</sup> UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None		
Dimensions <sup>3</sup> Weight <sup>2</sup> Case color Case material Battery - type <sup>37</sup> Battery - life <sup>10</sup>	14.0W" (WxDxH): 13.11" x 8.86" x 0.81"; 332.8mm x 224.8mm x 20.3mm 4-cell: from 3.92 lb (1.78kg) Black or silver (top); black bottom Sand Blast Aluminum Li-Polymer 4-cell (46Whr) MobileMark 2007: Windows 7: up to 7.2 hr MobileMark 2012: Windows 8: up to 5.2 hr		
Chipset ExpressCard Multicard Reader Ports	<b>Mobile Intel HM76 Express Chipset</b> None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN <sup>4</sup> M.2 Card M.2 WWAN Bluetooth™ Ethernet Audio support	One PCI Express Mini Card slot 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 One M.2 Card slot for support of WWAN card or SSD None Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card Realtek® RTL8111F Gigabit Network Connection High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor		
Security Security chip Fingerprint reader			
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available		

Supports ThinkVantage® technologies
65-watt AC adapter ENERGY STAR® compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information  
US model(s) announced July 2, 2013

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(LBT1-3) July 2013

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20BA0000US	i5-3437U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win8 Pro64	06/13
20BA0001US	i7-3687U	8GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win8 Pro64	06/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; one spindles</i> <b>Intel® Core™ i5-3437U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology <b>Intel Core i7-3687U processor (2 cores, 2.10GHz, 4MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	<b>Preloaded operating system</b> <sup>20</sup> - Windows 8 Pro 64-bit  <b>Preloaded applications</b> (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office 2013 preloaded; purchase product key to activate
Memory	8GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket	
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable, Active Protection System™	
M.2 SSD	M.2 Solid State Drive (SSD), via M.2 Card slot	
Widescreen display Camera	<b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio HD720p resolution, low light sensitive, fixed focus, LED indicator	
Graphics	<b>Intel HD Graphics 4000</b> in processor, external digital monitor support via HDMI™ (supporting HDCP to output protected content); <i>Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys, LED backlight TrackPoint pointing device, Internet Scroll Bar <sup>13</sup> UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None	
Dimensions <sup>3</sup> Weight <sup>2</sup> Case color Case material Battery - type <sup>37</sup> Battery - life <sup>10</sup>	14.0W" (WxDxH): 13.11" x 8.86" x 0.81"; 332.8mm x 224.8mm x 20.3mm 4-cell: from 3.92 lb (1.78kg) Black or silver (top); black bottom Sand Blast Aluminum Li-Polymer 4-cell (46Whr) <i>MobileMark 2007:</i> Windows 7: up to 9.1 hr <i>MobileMark 2012:</i> Windows 8: up to 5.9 hr	
Chipset ExpressCard Multicard Reader Ports	<b>Mobile Intel HM76 Express Chipset</b> None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN <sup>4</sup> M.2 Card M.2 WWAN Bluetooth™ Ethernet Audio support	One PCI Express Mini Card slot 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 One M.2 Card slot for support of WWAN card or SSD None Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card Realtek® RTL8111F Gigabit Network Connection High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	Supports ThinkVantage® technologies
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor	65-watt AC adapter ENERGY STAR® compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available	For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information  
US model(s) announced June 4, 2013

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# ThinkPad® S3-S431 20AX (TopSeller) - MultiTouch

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>3</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD Top color	Finger print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20AX000VUS	i7-3687U	8GBx1	14.0" HD+ Touch	720p	500G 7200	TP 11a/b/g/n + BT	24G Black	Finger	4	46	Win8 Pro64	08/13
20AX000TUS	i3-3227U	4GBx1	14.0" HD+ Touch	720p	500G 7200	TP 11a/b/g/n + BT	24G Black	Finger	4	46	Win8 Pro64	08/13
20AX000UUS	i5-3337U	4GBx1	14.0" HD+ Touch	720p	500G 7200	TP 11a/b/g/n + BT	24G Black	Finger	4	46	Win8 Pro64	08/13

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; one spindles <b>Intel® Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), HT technology <b>Intel Core i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology <b>Intel Core i7-3687U processor (2 cores, 2.10GHz, 4MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> - Windows 8 Pro 64-bit  <b>Preloaded applications</b> (only some listed) <ul style="list-style-type: none"><li>• Lenovo Support</li><li>• Lenovo Companion</li><li>• Lenovo Cloud Storage</li><li>• ThinkVantage System Update</li><li>• Norton™ Internet Security (30 days of virus definitions)</li><li>• Skype™</li><li>• Microsoft Office preloaded; purchase a product key to activate</li></ul>
Memory	8GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable, Active Protection System™		
M.2 SSD	M.2 Solid State Drive (SSD), via M.2 Card slot		
Widescreen display	<i>Some:</i> <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio <i>Some:</i> <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , anti-glare, 10-point touch screen LED backlight, 220 nits, 16:9 aspect ratio		
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator		
Graphics	<b>Intel HD Graphics 4000</b> in processor, external digital monitor support via HDMI™ (supporting HDCP to output protected content); <i>Max external resolution:</i> 1920x1200 (HDMI)@60Hz		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys, LED backlight TrackPoint pointing device, Internet Scroll Bar <sup>13</sup> UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None		
Dimensions <sup>3</sup> Weight <sup>2</sup> Case color Case material Battery - type <sup>37</sup> Battery - life <sup>10</sup>	14.0W" (WxDxH): 13.10" x 8.85" x 0.87"; 332.8mm x 224.8mm x 22.1mm <i>4-cell:</i> from 4.10 lb (1.86kg) Black or silver (top); black bottom Sand Blast Aluminum Li-Polymer 4-cell (46Whr) <i>MobileMark 2007:</i> Windows 7: up to 6.7 hr <i>MobileMark 2012:</i> Windows 8: up to 4.9 hr		
Chipset ExpressCard Multicard Reader Ports	<b>Mobile Intel HM76 Express Chipset</b> None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN <sup>4</sup> M.2 Card M.2 WWAN Bluetooth™ Ethernet Audio support	One PCI Express Mini Card slot 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 One M.2 Card slot for support of WWAN card or SSD None Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card Realtek® RTL8111F Gigabit Network Connection High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole		
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor		
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available		

Supports ThinkVantage® technologies
65-watt AC adapter ENERGY STAR® compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information  
US model(s) announced August 13, 2013

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# ThinkPad® S3-S431 20BA (MultiTouch)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD Top color	Finger print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20BA0002US	i5-3437U	4GBx1	14.0" HD+ Touch	720p	500G 7200	TP 11a/b/g/n + BT	24G Black	Finger	4	46	Win8 Pro64	08/13
20BA0003US	i7-3687U	8GBx1	14.0" HD+ Touch	720p	500G 7200	TP 11a/b/g/n + BT	24G Black	Finger	4	46	Win8 Pro64	08/13

Positioning Processor	Sophisticated design with quality, durability and reliability for SMB customers; one spindles <b>Intel® Core™ i5-3437U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology <b>Intel Core i7-3687U processor (2 cores, 2.10GHz, 4MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> - Windows 8 Pro 64-bit  <b>Preloaded applications</b> (only some listed) <ul style="list-style-type: none"><li>• Lenovo Support</li><li>• Lenovo Companion</li><li>• Lenovo Cloud Storage</li><li>• ThinkVantage System Update</li><li>• Norton™ Internet Security (30 days of virus definitions)</li><li>• Skype™</li><li>• Microsoft Office preloaded; purchase a product key to activate</li></ul>
Memory	8GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable, Active Protection System™		
M.2 SSD	M.2 Solid State Drive (SSD), via M.2 Card slot		
Widescreen display	<i>Some:</i> <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio <i>Some:</i> <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , anti-glare, 10-point touch screen LED backlight, 220 nits, 16:9 aspect ratio		
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator		
Graphics	<b>Intel HD Graphics 4000</b> in processor, external digital monitor support via HDMI™ (supporting HDCP to output protected content); <i>Max external resolution: 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI)@60Hz</i>		
Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight		
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar <sup>13</sup>		
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch		
ThinkLight™	None		
Dimensions <sup>3</sup>	14.0W" (WxDxH): 13.10" x 8.85" x 0.87"; 332.8mm x 224.8mm x 22.1mm		
Weight <sup>2</sup>	4-cell: from 4.10 lb (1.86kg)		
Case color	Black or silver (top); black bottom		
Case material	Sand Blast Aluminum		
Battery - type <sup>37</sup>	Li-Polymer 4-cell (46Whr)		
Battery - life <sup>10</sup>	<i>MobileMark 2007:</i> Windows 7: up to 6.7 hr <i>MobileMark 2012:</i> Windows 8: up to 4.9 hr		
Chipset	<b>Mobile Intel HM76 Express Chipset</b>		
ExpressCard	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)		
PCIe Mini Card	One PCI Express Mini Card slot		
PCIe WLAN <sup>4</sup>	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2		
M.2 Card	One M.2 Card slot for support of WWAN card or SSD		
M.2 WWAN	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / dual array microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor		
Limited warranty <sup>12</sup>	<b>1-year</b> - depot repair service / service upgrades <sup>22</sup> available		
			Supports ThinkVantage® technologies
			65-watt AC adapter ENERGY STAR® compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
			For Lenovo <sup>22</sup> service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information  
US model(s) announced August 13, 2013

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The TopSeller™ services are designed to make selling the popular services with TopSeller systems faster and easier. Channel partners should always use TopSeller services with TopSeller systems. TopSeller services part numbers typically provide enhanced discounts and incentives for channel partners. The TopSeller service delivered to the customer is identical to the service delivered using a standard service part number. In situations where a desired service is not offered under a TopSeller service part number or the sale requires a special bid process, use available standard service part numbers.

*TopSeller services should always be offered by channel business partners with TopSeller hardware, unless the sale requires special bid pricing or the desired service is not offered as a TopSeller service part.*

For more information see:

<http://www2.partnerinfo.lenovo.com/partners/us/resources/salestoolkit.shtml>

## **TopSeller service upgrade options for ThinkPad Edge/Twist/S3 Series**

### **ThinkPad Edge E430c/E530c notebooks with 1-year Depot warranty**

3 YEAR Depot Warranty	04W8706
3 YEAR Depot Warranty & Accidental Damage Protection	04W8708
3 YEAR Onsite Warranty	04W8707
3 YEAR Onsite Warranty & Accidental Damage Protection	04W8709

### **ThinkPad Twist S230u notebook with 1-year Depot warranty**

3 YEAR Depot Warranty with Battery Replacement	04W8702
3 YEAR Depot Warranty with Battery Replacement & Accidental Damage Protection	04W8704
3 YEAR Onsite Warranty with Battery Replacement	04W8703
3 YEAR Onsite Warranty with Battery Replacement & Accidental Damage Protection	04W8705

### **ThinkPad Edge E431/E531 notebooks with 1-year Depot warranty**

2 YEAR Depot Warranty	5WS0A23679
3 YEAR Depot Warranty	5WS0A23741
3 YEAR Depot Warranty & Accidental Damage Protection	5PS0A23716
2 YEAR Onsite Warranty	5WS0A23708
3 YEAR Onsite Warranty	5WS0A23776

### **ThinkPad S3 S431 notebooks with 1-year Depot warranty**

3 YEAR Depot Warranty with Battery Replacement & Accidental Damage Protection	5PS0A14104
3 YEAR Onsite Warranty with Battery Replacement & Accidental Damage Protection	5WS0A14076

## **TopSeller Priority Support**

- 24x7 support with priority routing and advanced level technicians

### **ThinkPad Edge E430c/E530c notebooks with 1-year Depot warranty**

Add to 3-year warranty coverage - 3-year Priority Support*	45J9094
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### **ThinkPad Twist S230u notebook with 1-year Depot warranty**

Add to 3-year warranty coverage - 3-year Priority Support*	45J9094
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### **ThinkPad Edge E431/E531 notebooks with 1-year Depot warranty**

Add to 3-year warranty coverage - 3-year Priority Support*	5WS0A23257
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### **ThinkPad S3 S431 notebooks with 1-year Depot warranty**

Add to 3-year warranty coverage - 3-year Priority Support*	5WS0A14092
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\* Covered machine must have concurrent warranty coverage.

Partial list of Lenovo® Services<sup>22</sup> for ThinkPad E/Twist/S series notebooksFor more information see: [http://www.lenovo.com/services\\_warranty/us/en/index.html](http://www.lenovo.com/services_warranty/us/en/index.html)**Lenovo service upgrade options for ThinkPad E/Twist/S series****ThinkPad Twist S230u notebook with 1-year Depot warranty**

2 YEAR Depot Warranty	0C07006
3 YEAR Depot Warranty	0C07010
1 YEAR Onsite Warranty	45K5968
2 YEAR Onsite Warranty	0C07007
3 YEAR Onsite Warranty	0C07011

**ThinkPad Edge E431/E531/E545 notebooks with 1-year Depot warranty**

2 YEAR Depot Warranty	5WS0A23781
3 YEAR Depot Warranty	5WS0A23813
2 YEAR Onsite Warranty	5WS0A23747
3 YEAR Onsite Warranty	5WS0A23681

**ThinkPad E440/E540 notebooks with 1-year Depot warranty**

2 YEAR Depot Warranty	5WS0A23781
3 YEAR Depot Warranty	5WS0A23813
2 YEAR Onsite Warranty	5WS0A23747
3 YEAR Onsite Warranty	5WS0A23681

**ThinkPad S1 Yoga notebooks with 1-year Depot warranty**

2 YEAR Depot Warranty	5WS0E97281
3 YEAR Depot Warranty	5WS0E97328
2 YEAR Onsite Warranty	5WS0E97258
3 YEAR Onsite Warranty	5WS0E97384

**ThinkPad S3 S431 notebooks with 1-year Depot warranty**

2 YEAR Depot Warranty	5WS0A14073
3 YEAR Depot Warranty	5WS0A14081
2 YEAR Onsite Warranty	5WS0A14078
3 YEAR Onsite Warranty	5WS0A14086



**Disclaimer**

Lenovo provides the information in the Product Specifications Reference (PSREF) withdrawn product books on an "AS-IS" basis. Because the actual products have been withdrawn from marketing, the information in these withdrawn product books is no longer maintained or updated. The referenced footnote numbering may not correspond with the listed footnotes.

PSREF books for the withdrawn systems:

[http://www.lenovo.com/psref/psrefs\\_withdrawn.html](http://www.lenovo.com/psref/psrefs_withdrawn.html)

**Availability:** All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

**Warranty:** For a copy of applicable product warranties, go to: [http://support.lenovo.com/en\\_US/product-service/warranty-status/WarrantyPolicies.page](http://support.lenovo.com/en_US/product-service/warranty-status/WarrantyPolicies.page). Lenovo makes no representation or warranty regarding third party products or services.

#### Footnotes:

<sup>1</sup> Power management, including Intel® SpeedStep® Technology, reduces processor speed when in battery mode.

<sup>2</sup> **Weight** includes battery and standard optical drive; weight may vary due to vendor components, manufacturing process and options.

<sup>3</sup> **Thinness** may vary at certain points on the system.

<sup>4</sup> **Wireless capability:** Requires compatible wireless-enabled options sold separately.

<sup>6</sup> **Public network download modem speeds** are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.

<sup>7</sup> **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On ThinkPad systems, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.

<sup>8</sup> **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.

<sup>10</sup> **Battery:** These model numbers achieved the battery life based on MobileMark® 2007 during testing. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

<sup>12</sup> **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

<sup>13</sup> **Internet access not included.**

<sup>14</sup> **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

<sup>16</sup> **Activating Verizon Wireless Service:** Lenovo customers will be contacted after purchase to activate service; requires separate agreement with Verizon Wireless and is subject to the Customer Agreement, Calling Plan, and credit approval. Service, airtime, and early termination charges may apply. Verizon Wireless, not Lenovo, is solely responsible for service. Service not available in all areas; purchaser is responsible for verifying that service is available for the intended location before purchasing a computer equipped with WAN card. Network details, coverage limitations, and maps at [www.verizonwireless.com](http://www.verizonwireless.com).

<sup>17</sup> **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.

<sup>18</sup> **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary. May exclude some holidays. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, Lenovo will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For ThinkPad notebooks with Depot or Courier service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.

<sup>19</sup> **Depot repair service:** The customer may be asked certain diagnostic questions before a courier is sent. Your ThinkPad purchase includes this depot repair service, available in the U.S. during the limited warranty period.

<sup>20</sup> **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to [lenovo.com/pc/support](http://lenovo.com/pc/support) and enter your machine type and model number for more information.

<sup>22</sup> **Lenovo Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. For ThinkPad notebooks requiring LCD or other component replacement, Lenovo may choose to perform service at the depot repair center. Calls must be received by 5 pm local time in order to qualify for Next Business Day service. P&L means parts and labor. P/U means pick-up. See Lenovo Warranty Services terms and conditions for complete details and restrictions.

<sup>23</sup> **Activating AT&T Wireless Service:** Requires separate agreement with AT&T, subject to service agreement, rate plan and coverage maps. AT&T, not Lenovo, is solely responsible for service. Coverage not available in all areas; AT&T BroadbandConnect available in select metropolitan markets. Special credit and tenure restrictions and additional charges may apply to international roaming. A network connection, third-party software, additional hardware, and/or subscription to a third-party service may be required for certain solutions/applications. Additional restrictions apply, including early termination fee; see [www.wireless.att.com](http://www.wireless.att.com) for details. To activate call Lenovo Wireless Activation Hot Line at 1-877-299-4710.

<sup>24</sup> **Limited onsite service systems** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. Support unrelated to a warranty issue may be subject to additional charges. Lenovo onsite repair (LOR), 8 am to 5 pm, Monday through Friday coverage excluding holidays, next business day (NBD) response time.

<sup>27</sup> **Based on IEEE 802.11a and 802.11b.** A customer can not upgrade to a different wireless Mini PCI adapter due to FCC regulations. Security screws prevent removal of this adapter. This wireless LAN product has been designed to permit legal operation world-wide in regions which it is approved. This product has been tested and certified to be interoperable by the Wireless Ethernet Compatibility Alliance and is authorized to carry the Wi-Fi logo.

<sup>28</sup> **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.

<sup>30</sup> **Measures only maximum** data transfer rate, not application performance. Many factors affect application performance.

<sup>32</sup> **Wireless:** Based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.

<sup>35</sup> **Operating system:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to [lenovo.com/think/support](http://lenovo.com/think/support) and enter your machine type and model number for more information.

<sup>37</sup> **Battery:** The ThinkPad Edge and ThinkPad SL series do not support batteries that are not genuine Lenovo-made or authorized. These systems will continue to boot, but may not charge unauthorized batteries.

**Warning:** Lenovo has no responsibility for the performance or safety of unauthorized batteries, and provides no warranties for failures or damage arising out of their use.

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Visit [www.lenovo.com/psref](http://www.lenovo.com/psref) for the latest version of Product Specifications Reference.

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